Micro Informatique Standards AMSTRAD

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SPECIAL LISTINGS
CPC

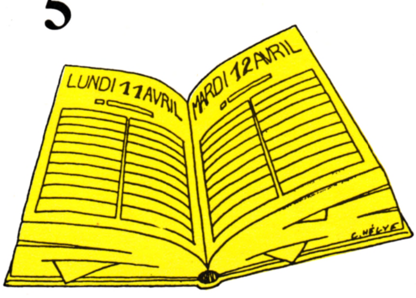
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SOMMAIRE





Dessin de couverture Gilles Année (INFOTECH).

A L'ATTENTION DE NOS LECTEURS !

Ce numéro de CPC est un hors-série ne comportant que des listings. Il paraît tous les deux mois dans les kiosques et il est offert aux abonnés. Ne confondez pas avec le CPC mensuel !





CPC est une publication du groupe de presse FAUREZ-MELLET

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Editions SORACOM
La Haie-de-Pan - 35170 BRUZ
RCS Rennes B319816302
CCP Rennes 794.17V
Tél. 99.52.98.11+
Télex SORMHZ 741.042F
Serveur 3615 MHZ

Gestion - Réseau
Bretagne Edit' Presse
Terminal E83
99.57.97.96

Régie Publicitaire
IZARD CREATION - 15, rue St-Melaine
35000 Rennes - Tél. 99.38.95.33

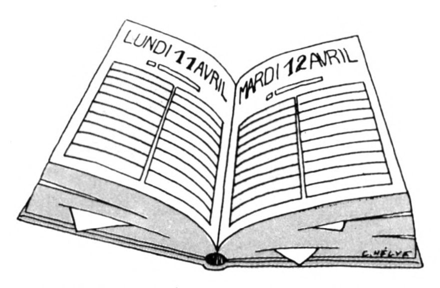
Dépôt légal à parution
Distribué en Suisse par :
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AGENDA



Thierry BALINT

Agenda vous propose la gestion de votre emploi du temps. Combien de fois n'avez vous pas pensé : j'aurais dû marquer cela quelque part... Seulement, depuis que vous utilisez votre ordinateur, plus question de toucher un morceau de papier ! Alors voici la solution pour ne rien perdre sur un CPC.



Un fichier généré par Agenda (.AGD) est constitué de trente et une fiches à seize champs pour chaque journée. Le fichier représente ainsi un mois de données.
Possibilité vous est offerte, en sauvegardant divers fichiers, d'établir votre Agenda annuel (ex: JANVIER.AGD, FEVRIER.ADG, etc).
Dans le premier menu, vous devrez définir vos préférences : changer les couleurs de votre écran, décider du jeu de caractères que vous utiliserez parmi 5 possibles ; ceci afin de personnaliser votre travail. C'est de là que vous accèderez au second menu qui sera le programme principal.
Agenda est muni de toutes les directives et des messages d'erreurs afin de progresser dans le programme.
Attention : pour les utilisateurs de 464, il faut enlever l'instruction CLEAR INPUT à la ligne 580 pour que tout fonctionne très bien.

LISTING 1

```
10 'Le 01/12/87 - T.BALINT                >LA
20 'Prog. "AGENDA.BAS"  VERSION 2.0 >LB
 (9Ko)
30 CALL &BB4E                              >GE
40 CLS:MODE 2:DEFINT a-z                   >TZ
50 BORDER 1:INK 0,1:INK 1,1                >UD
60 MOVE 0,1:DRAW 0,398:DRAW 639,398 >YH
:DRAW 639,1:DRAW 0,1
70 MOVE 4,390:DRAW 636,390:DRAW 636 >RW
,362:DRAW 4,362:DRAW 4,390:MOVE 4,8
:DRAW 4,328:DRAW 138,328:DRAW 138,8
:DRAW 4,8:MOVE 142,328:DRAW 636,328
:DRAW 636,58:DRAW 142,58:DRAW 142,3
28:MOVE 142,54:DRAW 636,54:DRAW 636
,8:DRAW 142,8:DRAW 142,54
80 LOCATE 2,2:PRINT"* * *  A  G  E  >HH
 N  D  A  * * *      version 2.0
"+CHR$(164)+" T.BALINT  -Decembre 1
987-"
90 WINDOW#1,34,79,6,21:PAPER#1,0:PE >KE
N#1,1:WINDOW#2,2,15,7,24:WINDOW#3,1
9,79,23,24
100 b=1:p=1:c=24:BORDER b:INK 0,p:I >HA
NK 1,c
110 CLS#2:CLS#3:LOCATE 3,25:PRINT"  >UD
HIMEM:";HIMEM:MOVE 16,0:DRAW 128,0
120 DATA Couleur,Ecriture,Menu,Noti >UG
ce,Quitter
130 RESTORE 120:no=5                       >PX
140 GOSUB 190                              >HE
150 GOSUB 240                              >HB
160 ON k GOSUB 340,450,560,1640,600 >AE

170 GOTO 110                               >YG
180 '---------- AFFICHAGE MENU --          >RK
190 tx$="":FOR j=1 TO no                   >RB
200 READ o$:tx$=tx$+LEFT$(o$,1)            >ZH
210 LOCATE#2,4,j*2+8-no:PRINT#2,"-  >GN
";o$
220 NEXT:RETURN                            >MY
230 '---------- REPONSE MENU --            >RF
240 tx$=UPPER$(tx$):lt=LEN(tx$)            >BA
250 PRINT#3,"  Reponse [ ";                >YH
260 FOR i=1 TO lt-1                        >MM
270 PRINT#3,MID$(tx$,i,1);",";:NEXT >DX

280 PRINT#3,RIGHT$(tx$,1);" ] ";CHR >MT
$(154);CHR$(243);" ";CHR$(207)
290 r$="":WHILE r$="":r$=INKEY$:WEN >EB
D
300 r$=UPPER$(r$):k=INSTR(tx$,r$)          >CP
310 IF k=0 THEN PRINT CHR$(7);:GOTO >FQ
 290
320 RETURN                                 >ZA
330 '---------- COULEURS --                >RG
340 CLS#2:CLS#3:a$=" COULEURS":GOSU >YX
B 640:RESTORE 350
350 DATA "- Bordure","- Papier","-  >FM
Crayon","- Retour"
360 GOSUB 660                              >JA
370 PRINT#3,"  Reponse [ B,P,C,RETU >ER
RN ] ";CHR$(154);CHR$(243);" ";CHR$
(207)
380 GOSUB 650                              >JB
390 IF r$="B" THEN cl=b+1:GOSUB 430 >RA
:b=cl:BORDER b
400 IF r$="P" THEN cl=p+1:GOSUB 430 >QX
:p=cl:INK 0,p
410 IF r$="C" THEN cl=c+1:GOSUB 430 >PB
:c=cl:INK 1,c
420 IF r$=CHR$(13) THEN RETURN ELSE >GT
 FOR t=0 TO 50:NEXT:GOTO 380
430 IF cl=27 THEN cl=0:RETURN ELSE  >KE
RETURN
440 '---------- ECRITURES --               >RJ
450 CLS#2:CLS#3:a$=" ECRITURE":GOSU >YK
B 640:RESTORE 460
460 DATA "- Alpha  1","- Alpha  2", >KP
"- Alpha  3","- Standard"
470 GOSUB 660                              >JC
480 PRINT#3,"  Reponse [ 1,2,3,S ] >WR
";CHR$(154);CHR$(243);" ";CHR$(207)

490 GOSUB 650                              >JD
500 IF r$="1" THEN 680                     >NN
510 IF r$="2" THEN 1000                    >PV
520 IF r$="3" THEN 1320                    >PC
530 IF R$="S" THEN SYMBOL AFTER 256 >KV
:RETURN
540 GOTO 490                               >ZJ
550 '---------- MENU --                    >TA
560 CLS#2:CLS#3:PRINT#3,"  Veuillez >YY
 patientez"
570 FOR t=1 TO 1000:NEXT                   >RG
580 CLEAR:CLEAR INPUT:CLS#3:CHAIN"A >XX
GENDA1 .BAS",70
590 '---------- SOUS/PROGRAMMES -- >TE
600 CLS#2:CLS#3:PRINT#3,"  En etes- >BM
vous sur(e) !!!"
610 tx$="ON":GOSUB 290                     >QD
620 IF k=1 THEN 630 ELSE RETURN            >YD
630 CALL 0                                 >GH
640 LOCATE#2,4,2:PRINT#2,a$:RETURN >DQ
650 r$="":WHILE r$="":r$=UPPER$(INK >YN
EY$):WEND:RETURN
660 FOR n=5 TO 11 STEP 2:READ a$:LO >WU
CATE#2,4,n+1:PRINT#2,a$:NEXT:RETURN

670 '---------- REDEFINITION --            >TD
680 SYMBOL AFTER 256:SYMBOL AFTER 4 >EK
7
690 SYMBOL 48,30,33,33,33,33,33,30: >DJ
SYMBOL 49,4,12,4,4,4,4,14
700 SYMBOL 50,30,33,2,4,8,16,63:SYM >DN
BOL 51,30,33,1,14,1,33,30
710 SYMBOL 52,6,10,18,34,63,2,2:SYM >DZ
BOL 53,63,32,62,1,1,33,30
720 SYMBOL 54,4,8,16,62,33,33,30:SY >CE
MBOL 55,63,1,2,4,8,16,32
730 SYMBOL 56,30,33,33,30,33,33,30: >FZ
SYMBOL 57,30,33,33,31,2,4,8
```



```
740 SYMBOL 65,0,28,34,34,62,34,34:S >GW
YMBOL 97,0,28,34,34,62,34,34
750 SYMBOL 66,0,124,34,60,34,34,124 >ML
:SYMBOL 98,0,124,34,60,34,34,124
760 SYMBOL 67,0,28,34,32,32,34,28:S >GY
YMBOL 99,0,28,34,32,32,34,28
770 SYMBOL 68,0,124,34,34,34,34,124 >NT
:SYMBOL 100,0,124,34,34,34,34,124
780 SYMBOL 69,0,62,32,60,32,32,62:S >HH
YMBOL 101,0,62,32,60,32,32,62
790 SYMBOL 70,0,62,32,60,32,32,32:S >HV
YMBOL 102,0,62,32,60,32,32,32
800 SYMBOL 71,0,28,34,32,46,34,28:S >HW
YMBOL 103,0,28,34,32,46,34,28
810 SYMBOL 72,0,34,34,34,62,34,34:S >HL
YMBOL 104,0,34,34,34,62,34,34
820 SYMBOL 73,0,62,8,8,8,8,62:SYMBO >ZF
L 105,0,62,8,8,8,8,62
830 SYMBOL 74,0,30,4,4,4,36,24:SYMB >BF
OL 106,0,30,4,4,4,36,24
840 SYMBOL 75,0,34,36,56,56,36,34:S >JL
YMBOL 107,0,34,36,56,56,36,34
850 SYMBOL 76,0,32,32,32,32,32,62:S >HC
YMBOL 108,0,32,32,32,32,32,62
860 SYMBOL 77,0,34,54,42,34,34,34:S >HC
YMBOL 109,0,34,54,42,34,34,34
870 SYMBOL 78,0,34,50,42,38,34,34:S >HW
YMBOL 110,0,34,50,42,38,34,34
880 SYMBOL 79,0,28,34,34,34,34,28:S >JB
YMBOL 111,0,28,34,34,34,34,28
890 SYMBOL 80,0,60,34,34,60,32,32:S >HC
YMBOL 112,0,60,34,34,60,32,32
900 SYMBOL 81,0,28,34,34,42,36,26:S >HV
YMBOL 113,0,28,34,34,42,36,26
910 SYMBOL 82,0,60,34,34,60,36,34:S >HM
YMBOL 114,0,60,34,34,60,36,34
920 SYMBOL 83,0,28,34,48,6,34,28:SY >FN
MBOL 115,0,28,34,48,6,34,28
930 SYMBOL 84,0,62,8,8,8,8,8:SYMBOL >XF
 116,0,62,8,8,8,8,8
940 SYMBOL 85,0,34,34,34,34,34,28:S >HD
YMBOL 117,0,34,34,34,34,34,28
950 SYMBOL 86,0,34,34,34,34,20,8:SY >FT
MBOL 118,0,34,34,34,34,20,8
960 SYMBOL 87,0,34,34,34,42,54,34:S >HF
YMBOL 119,0,34,34,34,42,54,34
970 SYMBOL 88,0,66,36,24,24,36,66:S >JP
YMBOL 120,0,66,36,24,24,36,66
980 SYMBOL 89,0,66,36,24,16,32,64:S >JG
YMBOL 121,0,66,36,24,16,32,64
990 SYMBOL 90,0,62,4,8,16,32,62:SYM >PF
BOL 122,0,62,4,8,16,32,62:RETURN
1000 SYMBOL AFTER 256:SYMBOL AFTER  >EH
47
1010 SYMBOL 48,30,33,33,33,33,33,30 >EB
:SYMBOL 49,4,12,4,4,4,4,14
1020 SYMBOL 50,30,33,2,4,8,16,63:SY >EQ
MBOL 51,30,33,1,14,1,33,30
1030 SYMBOL 52,6,10,18,34,63,2,2:SY >EB
MBOL 53,63,32,62,1,1,33,30
1040 SYMBOL 54,4,8,16,62,33,33,30:S >DF
YMBOL 55,63,1,2,4,8,16,32
1050 SYMBOL 56,30,33,33,30,33,33,30 >GD
:SYMBOL 57,30,33,33,31,2,4,8
1060 SYMBOL 65,124,130,194,254,194, >EJ
194,194:SYMBOL 97,124,130,194,254,1
94,194,194
1070 SYMBOL 66,248,132,196,252,194, >EW
194,252:SYMBOL 98,248,132,196,252,1
94,194,252
1080 SYMBOL 67,124,130,192,192,192, >EU
194,124:SYMBOL 99,124,130,192,192,1
92,194,124
1090 SYMBOL 68,248,132,194,194,194, >GC
196,248:SYMBOL 100,248,132,194,194,
194,196,248
1100 SYMBOL 69,254,130,192,248,192, >FZ
194,254:SYMBOL 101,254,130,192,248,
192,194,254
1110 SYMBOL 70,254,130,192,248,192, >FQ
192,192:SYMBOL 102,254,130,192,248,
192,192,192
1120 SYMBOL 71,124,130,192,206,194, >FV
194,124:SYMBOL 103,124,130,192,206,
194,194,124
1130 SYMBOL 72,130,130,194,254,194, >FT
194,194:SYMBOL 104,130,130,194,254,
194,194,194
1140 SYMBOL 73,124,16,24,24,24,24,1 >RW
24:SYMBOL 105,124,16,24,24,24,24,12
4
1150 SYMBOL 74,126,8,24,24,24,152,1 >RD
12:SYMBOL 106,126,8,24,24,24,152,11
2
1160 SYMBOL 75,134,140,216,240,216, >FX
204,198:SYMBOL 107,134,140,216,240,
216,204,198
1170 SYMBOL 76,128,128,192,192,192, >GP
194,254:SYMBOL 108,128,128,192,192,
192,194,254
1180 SYMBOL 77,130,198,238,250,210, >FE
194,194:SYMBOL 109,130,198,238,250,
210,194,194
1190 SYMBOL 78,134,194,226,242,218, >FD
206,230:SYMBOL 110,134,194,226,242,
218,206,230
1200 SYMBOL 79,124,130,194,194,194, >FK
226,124:SYMBOL 111,124,130,194,194,
194,226,124
1210 SYMBOL 80,252,130,194,252,192, >FZ
192,224:SYMBOL 112,252,130,194,252,
192,192,224
1220 SYMBOL 81,124,130,194,194,202, >FK
228,122:SYMBOL 113,124,130,194,194,
202,228,122
1230 SYMBOL 82,252,130,194,252,216, >FH
204,198:SYMBOL 114,252,130,194,252,
216,204,198
1240 SYMBOL 83,60,98,96,60,134,134, >VG
124:SYMBOL 115,60,98,96,60,134,134,
124
1250 SYMBOL 84,254,146,24,24,24,24, >TJ
24:SYMBOL 116,254,146,24,24,24,24,2
4
1260 SYMBOL 85,130,130,194,194,194, >FN
226,124:SYMBOL 117,130,130,194,194,
194,226,124
1270 SYMBOL 86,134,130,194,194,100, >AQ
56,16:SYMBOL 118,134,130,194,194,10
0,56,16
1280 SYMBOL 87,146,146,218,218,218, >GD
218,108:SYMBOL 119,146,146,218,218,
218,218,108
1290 SYMBOL 88,198,108,56,56,108,19 >AH
8,130:SYMBOL 120,198,108,56,56,108,
198,130
1300 SYMBOL 89,130,198,108,56,48,96 >YB
,192:SYMBOL 121,130,198,108,56,48,9
6,192
1310 SYMBOL 90,254,134,12,24,48,98, >GC
254:SYMBOL 122,254,134,12,24,48,98,
254:RETURN
1320 SYMBOL AFTER 256:SYMBOL AFTER  >FE
47
1330 SYMBOL 48,56,198,206,214,230,1 >RA
98,56:SYMBOL 49,24,24,24,0,24,24,24

1340 SYMBOL 50,120,6,6,56,192,192,6 >LZ
0:SYMBOL 51,248,6,6,120,6,6,248
1350 SYMBOL 52,204,204,204,50,12,12 >ML
,12:SYMBOL 53,60,192,192,6,6,120
1360 SYMBOL 54,60,192,192,56,198,19 >KP
8,56:SYMBOL 55,248,6,6,0,6,6,6
1370 SYMBOL 56,56,198,198,56,198,19 >TU
8,56:SYMBOL 57,56,198,198,56,6,6,12
0
1380 SYMBOL 65,126,226,226,250,238, >EV
226,226:SYMBOL 97,126,226,226,250,2
38,226,226
1390 SYMBOL 66,124,226,226,252,226, >EP
226,252:SYMBOL 98,124,226,226,252,2
26,226,252
1400 SYMBOL 67,56,230,230,224,224,2 >BP
30,120:SYMBOL 99,56,230,230,224,224
,230,120
1410 SYMBOL 68,252,230,230,230,230, >FA
230,252:SYMBOL 100,252,230,230,230,
230,230,252
1420 SYMBOL 69,252,226,224,248,224, >FH
226,252:SYMBOL 101,252,226,224,248,
224,226,252
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1430 SYMBOL 70,126,230,238,224,248, >FV
224,224:SYMBOL 102,126,230,238,224,
248,224,224
1440 SYMBOL 71,126,230,238,224,238, >FW
230,254:SYMBOL 103,126,230,238,224,
238,230,254
1450 SYMBOL 72,230,230,230,246,238, >FU
230,230:SYMBOL 104,230,230,230,246,
238,230,230
1460 SYMBOL 73,56,52,48,48,48,52,56 >ML
:SYMBOL 105,56,52,48,48,48,52,56
1470 SYMBOL 74,60,102,6,6,6,230,254 >MB
:SYMBOL 106,60,102,6,6,6,230,254
1480 SYMBOL 75,230,230,236,248,252, >FC
228,230:SYMBOL 107,230,230,236,248,
252,228,230
1490 SYMBOL 76,224,224,224,224,224, >FQ
230,252:SYMBOL 108,224,224,224,224,
224,230,252
1500 SYMBOL 77,226,226,246,254,234, >FY
226,226:SYMBOL 109,226,226,246,254,
234,226,226
1510 SYMBOL 78,230,230,242,250,254, >FC
238,230:SYMBOL 110,230,230,242,250,
254,238,230
1520 SYMBOL 79,254,230,226,226,226, >FY
230,254:SYMBOL 111,254,230,226,226,
226,230,254
1530 SYMBOL 80,254,230,226,254,224, >FP
224,224:SYMBOL 112,254,230,226,254,
224,224,224
1540 SYMBOL 81,126,230,230,230,238, >FE
236,250:SYMBOL 113,126,230,230,230,
238,236,250
1550 SYMBOL 82,124,230,230,238,252, >FK
228,230:SYMBOL 114,124,230,230,238,
252,228,230
1560 SYMBOL 83,126,230,224,124,30,1 >DJ
98,252:SYMBOL 115,126,230,224,124,3
0,198,252
1570 SYMBOL 84,254,254,182,48,48,48 >WM
,48:SYMBOL 116,254,254,182,48,48,48
,48
1580 SYMBOL 85,230,230,226,226,226, >FF
226,254:SYMBOL 117,230,230,226,226,
226,226,254
1590 SYMBOL 86,230,102,98,98,98,54, >TC
28:SYMBOL 118,230,102,98,98,98,54,2
8
1600 SYMBOL 87,194,194,198,214,254, >GT
238,198:SYMBOL 119,194,194,198,214,
254,238,198
1610 SYMBOL 88,198,198,254,56,254,1 >DF
98,198:SYMBOL 120,198,198,254,56,25
4,198,198
1620 SYMBOL 89,198,198,254,56,16,16 >WE
,16:SYMBOL 121,198,198,254,56,16,16
,16
1630 SYMBOL 90,254,198,6,28,248,226 >KN
,254:SYMBOL 122,254,198,6,28,248,22
6,254:RETURN
1640 '---------- NOTICE --           >YD
1650 CLS#2:CLS#3:PRINT#1,"   A G E  >FJ
N D A  vous  propose  la gestion  d
e  votre  emploi  du  temps . La  t
aille  d' un  fichier  est  constit
uee  de  31  fiches a 16  champs cha
cune.Le fichier represente donc un
 mois de donnees."
1660 PRINT#1,"   Possibilite  vous  >BC
est  offerte , en sauve-  gardant
plusieurs  fichiers , d' etablir un
  agenda a l'annee.(JANVIER,FEVRIER
,etc..)."
1670 PRINT#1,"   A G E N D A  est m >TG
uni d' un module reglage  Cette  op
tion  vous  permet de  definir  les
  couleurs et de choisir votre ecri
ture,creant  ainsi une mise en page
 personnelle."
1680 PRINT#1,"   Lors du chargement >TA
 d' un fichier , il  est  recommand
e de consulter le catalogue pour le
  bon fonctionnement du programme.L
es fichiers  crees se reconnaissent
 au suffixe (.AGD)."
1690 CLS#3:PRINT#3," Une touche  S >PN
.V.P":CALL &BB06:CLS#1:CLS#3
1700 PRINT#1,"   RECOMMANDATIONS :" >EF

1710 PRINT#1,"   Afin de bien struc >XL
turer le fichier, il est  souhaitab
le  d ' entrer  les donnees   dans
  l'ordre. Pour cela, un index est
numerote de  1 a 31 (du 1er au 31em
e jour)."
1720 PRINT#1,"   Cette index  servi >XJ
ra de critere de recher-  che  lors
que  vous  voudrez  VOIR- MODIFIER-
  SUPPRIMER une fiche. Exemple:"
1730 PRINT#1," (1' index 3 correspo >TQ
ndra au 3 du mois de...)"
1740 PRINT#1:PRINT#1,"   A G E N D  >UR
A  est muni, en outre, de toutes  l
es directives et messages d'erreurs
  afin de  progresser dans le progra
mme."
1750 PRINT#1:PRINT#1,"   La  touche >LT
 virgule  ( , )  est a proscrire  l
ors de l'edition du fichier."
1760 CLS#3:PRINT#3," Une touche  S >GZ
.V.P  pour le retour MENU":CALL &BB
06
1770 CLS#1:CLS#3:RETURN              >TE
```

LISTING 2

```
10 'Le 05/12/87 - T.BALINT           >LA
20 'Prog. "AGENDA1.BAS"  VERSION 2. >LB
0  (9Ko)  LISTING 2
30 CLS#0:PRINT"Pas d'acces direct d >QA
ans ce programme ..."
40 PRINT"Je vous renvoie au program >LN
me  <AGENDA  .BAS>"
50 LOCATE 20,6:PRINT"Veuillez patie >WF
nter  !!!"
60 FOR x=0 TO 1500:NEXT:CHAIN"AGEND >MA
A  .BAS"
70 DIM ag$(31,16):GOSUB 2170         >VQ
80 OPENOUT"b":MEMORY HIMEM-1:CLOSEO >XE
UT:DEFINT a-z
90 WINDOW#1,34,79,6,21:PAPER#1,1:PE >UF
N#1,0:CLS#1:WINDOW#2,2,16,7,24:WIND
OW#3,19,79,23,24
100 LOCATE 2,4:PRINT CHR$(24);"     >VM
  MENU      ":LOCATE 19,4:PRINT" No
 ":LOCATE 24,4:PRINT" Champs ":LOCA
TE 35,4:PRINT"              Plannin
g journee               ";CHR$(24)
110 GOTO 180                         >YH
120 '----- MESSAGES CLIGNOTANTS --   >RD
130 CLS#3:FOR x=1 TO 3:LOCATE#3,3,1 >CU
:PRINT#3,er$:GOSUB 160
140 LOCATE#3,3,1:PRINT#3,STRING$(49 >BC
," "):GOSUB 160:NEXT
150 FOR t=1 TO 300:NEXT:CLS#3:RETUR >EF
N
160 FOR t=1 TO 1000:NEXT:RETURN      >AE
170 '----- MENU PRINCIPAL --         >RJ
180 CLS#1:CLS#3                      >CK
190 DATA "A -charger","B -sauvegard >QK
er",,"C -entrer","D -modifier","E -
supprimer","F -voir","G -quitter",,
"H -catalogue","I -vider","J -effac
er",,"RETURN -retour","TAB    -info
s"
200 RESTORE 190:FOR n=0 TO 14:READ  >TH
a$:LOCATE#2,1,n+1:PRINT#2,a$:NEXT
210 LOCATE 3,25:PRINT" HIMEM:";HIME >DJ
M:MOVE 16,0:DRAW 128,0
220 GOSUB 390:PRINT CHR$(7);         >WY
230 PRINT#3," Votre choix ?"         >BL
240 a$=INKEY$:IF a$="" THEN 240      >XU
250 IF INKEY(69)=0 THEN 640          >UQ
260 IF INKEY(54)=0 THEN 760          >UN
270 IF INKEY(62)=0 THEN 890          >UT
280 IF INKEY(61)=0 THEN 1060         >VF
290 IF INKEY(58)=0 THEN 1250         >VP
300 IF INKEY(53)=0 THEN 1440         >VB
310 IF INKEY(52)=0 THEN 1610         >VA
```



```
320 IF INKEY(44)=0 THEN 1700          >VC
330 IF INKEY(35)=0 THEN 1880          >VN
340 IF INKEY(45)=0 THEN 1980          >VR
350 IF INKEY(18)=0 OR INKEY(6)=0 TH >HX
EN 2120
360 IF INKEY(68)=0 THEN 2400          >VL
370 GOTO 240                          >ZC
380 '----- MENU FICHIER --            >TB
390 DATA " 1   * Index :"," 2         >NR
Jour :"," 3       Date :"," 4   8h -
  9h:"," 5   9h - 10h:"," 6  10h -
 11h:"," 7  11h - 12h:"," 8  12h - 1
3h:"," 9  13h - 14h:","10  14h - 15
h:","11  15h - 16h:"
400 DATA "12  16h - 17h:","13  17h   >ZY
- 18h:","14  18h - 19h:","15  19h -
 20h:","16     Notes :"
410 RESTORE 390:FOR n=1 TO 16:READ  >YE
a$:LOCATE 20,n+5:PRINT a$:NEXT:RETU
RN
420 '----- SOUS/PROGRAMMES --         >RG
430 er$="Pas de donnees en memoire" >GM
:GOSUB 130:RETURN
440 CLS#3:INPUT#3,"  Jour (1er <=>  >YK
31eme) ";index$
450 bcl=1                             >FD
460 IF ag$(bcl,1)=index$ THEN RETUR >EJ
N
470 IF bcl<ctr THEN bcl=bcl+1:GOTO  >FP
460
480 er$="Journee non repertoriee":G >FJ
OSUB 130:GOTO 110
490 GOSUB 510:GOTO 650                >QQ
500 GOSUB 510:GOTO 780                >QL
510 er$="8 caracteres seulement !!" >FG
:GOSUB 130:RETURN
520 CLS#3:PRINT#3,"  Introduire dis >PV
quette, puis RETURN "
530 GOSUB 620                         >HF
540 IF r$=CHR$(13) THEN 560           >TD
550 GOSUB 580:GOTO 530                >QR
560 RETURN                            >ZG
570 PRINT#3,"  Reponse [ RETURN,S,P >RN
,M ] ";CHR$(154);CHR$(243);" ";CHR$
(207):RETURN
580 IF r$<>"O" OR r$<>"N" THEN PRIN >VV
T CHR$(7);:RETURN
590 GOSUB 600:GOTO 110                >QG
600 er$="Retour MENU":GOSUB 130:RET >KT
URN
610 CLS#3:WINDOW#0,20,79,6,21:CLS#0 >EF
:GOSUB 1870:CAT:RETURN
620 r$="":WHILE r$="":r$=UPPER$(INK >YK
EY$):WEND:RETURN
630 '----- CHARGER --                 >RK
640 GOSUB 520:GOSUB 610               >RB
650 INPUT#3,"  Nom du fichier a cha >YL
rger ";fic$
660 IF fic$="" THEN 2100              >QD
670 IF LEN(fic$)>8 THEN 490           >UG
680 OPENIN fic$+".AGD"                >QQ
690 INPUT#9,ctr                       >LY
700 FOR i1=1 TO ctr                   >MP
710 FOR i2=1 TO 16                    >LN
720 INPUT#9,ag$(i1,i2)                >QM
730 NEXT:NEXT:CLOSEIN                 >TQ
740 er$="Chargement termine":GOSUB  >ZH
130:GOTO 2100
750 '----- SAUVEGARDER --             >TC
760 IF ctr=0 THEN GOSUB 430:GOTO 11 >CV
0
770 GOSUB 520:GOSUB 610               >RF
780 INPUT#3,"  Nom du fichier a sau >EH
vegarder ";fic$
790 IF fic$="" THEN 2100              >QH
800 IF LEN(fic$)>8 THEN 500           >UT
810 OPENOUT fic$+".AGD"               >RF
820 PRINT#9,ctr                       >LP
830 FOR i1=1 TO ctr                   >MU
840 FOR i2=1 TO 16                    >LT
850 PRINT#9,ag$(i1,i2)                >QN
860 NEXT:NEXT:CLOSEOUT                >UQ
870 er$="Sauvegarde terminee":GOSUB >AZ
 130:GOTO 2100
880 '----- ENTRER --                  >TG
890 CLS#3:PRINT CHR$(7);              >TQ
900 ctr=ctr+1:FOR i=1 TO 16           >VW
910 INPUT#1," ",ag$(ctr,i):NEXT       >ZG
920 CLS#3:PRINT#3,"  Donnees correc >BR
tes ? [ O/N ] "
930 GOSUB 620                         >HK
940 IF r$="O" THEN 980                >NH
950 IF r$="N" THEN 970                >NG
960 GOSUB 580:GOTO 930                >QB
970 ctr=ctr-1:CLS#1:CLS#3:GOTO 900  >DD
980 CLS#3:GOSUB 150:PRINT#3,"  D'au >MA
tres entrees ? [ O/N ] "
990 GOSUB 620                         >JF
1000 IF r$="O" THEN 1030              >QP
1010 IF r$="N" THEN 1040              >QQ
1020 GOSUB 580:GOTO 990               >RK
1030 CLS#1:CLS#3:GOTO 900             >TG
1040 CLS#1:GOTO 110                   >MB
1050 '----- MODIFIER --               >XJ
1060 IF ctr=0 THEN GOSUB 430:GOTO 1 >DQ
10
1070 CLS#2:CLS#3:LOCATE#2,4,2:PRINT >VD
#2," MODIFIER"
1080 DATA "- Retour","- Suivant","- >QF
 Precedent","- Modifier"
1090 RESTORE 1080:FOR n=4 TO 10 STE >DF
P 2:READ a$:LOCATE#2,4,n+2:PRINT#2,
a$:NEXT
1100 GOSUB 570                        >PD
1110 ptr=1                            >QB
1120 FOR i=1 TO 16:PRINT#1," ";ag$( >PD
ptr,i):NEXT
1130 r$=UPPER$(INKEY$):IF r$="" THE >HV
N 1130
1140 IF r$=CHR$(13) THEN CLS#2:CLS# >LC
3:GOTO 110
1150 IF r$="S" AND ptr<ctr THEN ptr >BH
=ptr+1:CLS#1:GOTO 1120
1160 IF r$="P" AND ptr>1 THEN ptr=p >ZL
tr-1:CLS#1:GOTO 1120
1170 IF r$="M" THEN 1190              >QD
1180 IF r$<>CHR$(13) OR r$<>"S" OR  >FF
r$<>"P" OR r$<>"M" THEN PRINT CHR$(
7);:GOTO 1130
1190 CLS#3:INPUT#3,"  No du champ(1 >RT
-16) ";nmr
1200 IF nmr>0 AND nmr<17 THEN 1220  >ZA
1210 er$="No de 1 a 16  s.v.p":GOSU >VJ
B 130:GOTO 1190
1220 CLS#3:INPUT#3,"  Contenu :";ag >TX
$(ptr,nmr)
1230 CLS#3:CLS#1:GOSUB 570:GOTO 112 >DD
0
1240 '----- SUPPRIMER --              >XK
1250 IF ctr=0 THEN GOSUB 430:GOTO 1 >DR
10
1260 CLS#3:INPUT#3,"  Index (jour): >RY
 ";index$
1270 IF index$="" THEN 590            >TY
1280 bcl=1                            >MC
1290 IF ag$(bcl,1)=index$ THEN 1320 >BP

1300 IF bcl<ctr THEN bcl=bcl+1:GOTO >HB
 1290
1310 er$="Journee non repertoriee": >GZ
GOSUB 130:GOTO 110
1320 FOR i=1 TO 16:PRINT#1," ";ag$( >PQ
bcl,i):NEXT
1330 CLS#3:PRINT#3,"  Supprimer cet >NM
te journee ? [ O/N ] "
1340 GOSUB 620                        >PF
1350 IF r$="O" THEN 1390              >QH
1360 IF r$="N" THEN 1380              >QG
1370 GOSUB 580:GOTO 1340              >RL
1380 CLS#1:GOTO 110                   >NA
1390 FOR i1=bcl TO ctr-1              >RA
1400 FOR i2=1 TO 16                   >LD
1410 ag$(i1,i2)=ag$(i1+1,i2)          >VP
1420 NEXT:NEXT:ctr=ctr-1:CLS#1:GOTO >JG
 110
1430 '----- SORTIR --                 >YA
1440 IF ctr=0 THEN GOSUB 430:GOTO 1 >DT
10
1450 CLS#3:INPUT#3,"  Jour (1er <=> >ZK
 31eme) ";index$
1460 IF index$="" THEN 590            >TZ
```



```
1470 bcl=1                                  >MD
1480 IF ag$(bcl,1)=index$ THEN 1510 >BR

1490 IF bcl<ctr THEN bcl=bcl+1:GOTO >HN
 1480
1500 er$="Journee non repertoriee": >GA
GOSUB 130:GOTO 110
1510 FOR i=1 TO 16:PRINT#1," ";ag$( >PR
bcl,i):NEXT
1520 CLS#3:PRINT#3,"  Une autre jou >CD
rnee ? [ O/N ] "
1530 GOSUB 620                              >PG
1540 IF r$="O" THEN 1570                    >QJ
1550 IF r$="N" THEN 1580                    >QK
1560 GOSUB 580:GOTO 1530                    >RN
1570 CLS#3:GOTO 1590                        >NR
1580 CLS#1:GOTO 110                         >NC
1590 GOSUB 440:CLS#1:GOTO 1510              >YE
1600 '----- QUITTER --                      >XK
1610 IF ctr=0 THEN 1680                     >QC
1620 CLS#3:PRINT#3,"  Donnees sauve >GT
gardees ? [ O/N ]"
1630 GOSUB 620                              >PH
1640 IF r$="O" THEN 1680                    >QM
1650 IF r$="N" THEN 1670                    >QL
1660 GOSUB 580:GOTO 1630                    >RQ
1670 GOTO 110                               >FB
1680 CALL 0                                 >PA
1690 '----- CATALOGUE --                    >YJ
1700 CLS#2:CLS#3:WINDOW#0,20,79,6,2 >EJ
1:CLS#0:LOCATE#2,4,2:PRINT#2,"CATAL
OGUE"
1710 DATA "- Supprimer","- changer  >ZX
Nom","- Catalogue","- Retour"
1720 RESTORE 1710:FOR n=4 TO 10 STE >DD
P 2:READ a$:LOCATE#2,2,n+2:PRINT#2,
a$:NEXT
1730 GOSUB 1870:CAT                         >NX
1740 PRINT#3,"  Reponse [ S,N,C,RET >FK
URN ] ";CHR$(154);CHR$(243);" ";CHR
$(207)
1750 r$=UPPER$(INKEY$):IF r$="" THE >HM
N 1750
1760 IF r$="S" THEN 1810                    >QP
1770 IF r$="N" THEN 1830                    >QM
1780 IF r$="C" THEN CLS#0:CLS#3:GOS >NX
UB 1870:CAT
1790 IF r$=CHR$(13) THEN 1860               >VL
1800 IF r$<>CHR$(13) OR r$<>"S" OR  >EH
r$<>"N" OR r$<>"C" THEN PRINT CHR$(
7);:GOTO 1740
1810 CLS#3:INPUT#3,"  Nom du fichie >ZY
r  ( ? .AGD)  a supprimer ";fic$
1820 a$=fic$+".AGD":|ERA,@a$:CLS#3: >MA
GOTO 1740
1830 CLS#3:INPUT#3,"  Nom du fichie >XD
r  ( ? .AGD)  a renommer ";fic$
1840 CLS#3:INPUT#3,"  Nouveau nom " >PK
;ficn$
1850 a$=fic$+".AGD":a1$=ficn$+".AGD >NE
":|REN,@a1$,@a$:CLS#3:GOTO 1740
1860 CLS#2:CLS#0:WINDOW#0,1,80,1,25 >MU
:GOTO 110
1870 PRINT#0,"Les fichiers AGENDA s >YD
e reconnaissent au suffixe  (.AGD)"
:RETURN
1880 '----- VIDER --                        >YK
1890 IF ctr=0 THEN GOSUB 430:GOTO 1 >DC
10
1900 CLS#3:PRINT#3,"  ATTENTION  ce >QD
tte option vide le contenu memoire
!!!"
1910 GOSUB 2090                             >XE
1920 GOSUB 620                              >PK
1930 IF r$="O" THEN 1960                    >QQ
1940 IF r$="N" THEN 1970                    >QR
1950 GOSUB 580:GOTO 1920                    >RV
1960 ERASE ag$,erreur$:CLEAR:GOTO 7 >FE
0
1970 GOTO 110                               >FE
1980 '----- EFFACER --                      >ZA
1990 CLS#2:CLS#3:WINDOW#0,20,79,6,2 >LK
1:CLS#0
2000 GOSUB 1870:CAT                         >NM
2010 PRINT#3,"  Vous avez demandez  >TN
l'effacement des fichiers ( ? .BAK)
 !!!"
2020 GOSUB 2090                             >WH
2030 GOSUB 620                              >PC
2040 IF r$="O" THEN 2070                    >QA
2050 IF r$="N" THEN 2080                    >QB
2060 GOSUB 580:GOTO 2030                    >RE
2070 a$="*.BAK":|ERA,@a$:GOTO 2100          >BN
2080 GOTO 2100                              >MA
2090 PRINT#3,"  Confirmez par  [ O, >QY
N ] ";CHR$(154);CHR$(243);" ";CHR$(
207):RETURN
2100 CLS#0:WINDOW#0,1,80,1,25:GOTO  >FT
110
2110 '----- RETOUR --                       >XG
2120 CLS#2:CLS#3:WINDOW#0,20,79,6,2 >KD
1:CLS#0
2130 PRINT#3,"  Je retourne au MENU >EF
 precedent  !!!"
2140 FOR x=0 TO 2000:NEXT:CLS#3             >YR
2150 WINDOW#0,1,80,1,25:CHAIN"AGEND >PP
A  .BAS",90
2160 '----- TRAITEMENT ERREURS --           >YB
2170 ON ERROR GOTO 2350                     >QG
2180 DIM erreur$(32)                        >PE
2190 FOR i=1 TO 32:READ erreur$(i): >GE
NEXT
2200 DATA Next attendu,Erreur de sy >GG
ntaxe,Return attendu,Pas assez de d
onnees
2210 DATA Valeur ou argument incorr >QW
ect,Debordement dans un calcul
2220 DATA Depassement de la capacit >YL
e memoire,Numero de ligne inexistan
t
2230 DATA Indice de tableau hors li >WU
mites,Redimensionnement de tableau
2240 DATA Division par zero,Command >HB
e invalide en mode direct
2250 DATA Affectation d'une chaine  >RC
a une variable numerique ou inverse

2260 DATA L'espace reserve aux chai >RB
nes deborde,Chaine trop longue
2270 DATA Chain trop compliquee,CON >TY
T impossible,Fonction inconnue
2280 DATA Commande RESUME absente,C >KV
ommande RESUME inattendue
2290 DATA Commande directe trouvee  >ZT
sur le chargement d'un programme
2300 DATA Signe d'operation absent, >LX
Ligne trop longue,Fin de fichier re
ncontree
2310 DATA Erreur dans le type de fi >BE
chier,NEXT manquant,Fichier deja ou
vert
2320 DATA Commande inconnue,WEND ma >FT
nquant,WEND inattendu
2330 DATA Fichier non ouvert,Lectur >HG
e/ecriture interrompue
2340 RETURN                                 >FC
2350 CLS#0:CLS#3:PRINT#3,"  INFO :  >NV
";erreur$(ERR);" ligne";ERL
2360 PRINT"Le fichier demande n'exi >CU
ste pas  !!!"
2370 PRINT"Relancez le programme pa >WX
r RUN"
2380 PRINT:CLEAR:END                        >QF
2390 '----- INFOS --                        >YG
2400 CLS#2:CLS#3:LOCATE 5,6:PRINT"* >NX
 INFOS *"
2410 PRINT#2,"La  touche  (,)est st >WG
rictémentinterdite  lorsd' une sais
ie."
2420 PRINT#2,"L'ecriture, unefois c >QL
hoisie,nepeut plus  etremodifiee."
2430 PRINT#2,"Ne pas depasser31  en >WB
registre-ments (capacitefichier .AG
D)."
2440 PRINT#2,"Ne jamais edit-er  un >VU
e   fichevide  ;   vousperdriez l
 en-registrement."
2450 PRINT#3,"  Une touche  S.V.P": >RB
CALL &BB06
2460 LOCATE 5,6:PRINT SPACE$(9):CLS >PM
#2:GOTO 180
```



TITREUR

Roger PETIT

Les enfants aimant illustrer leurs "œuvres" (même très simples) par un titre bien cadré et de préférence en couleur, je leur ai "fabriqué" un utilitaire que j'ai appelé "TITREUR" mais qui ne peut travailler qu'avec l'aide de "LETTRES" qu'ils doivent compléter eux-mêmes, aidés par "R" (dessin de la lettre R).
L'utilisation de ces programmes n'étant pas limitée aux seuls élèves, une description sommaire est nécessaire.

"TITREUR" est un utilitaire auto-explicatif qui permet de composer un TITRE (ou 1 ligne de texte), de le mettre en PAGE (changement de la taille des lettres, décalage horizontal et vertical) et de modifier les COULEURS du bord, du fond et du texte (en modes 1 et 2).
La sauvegarde de la composition s'effectue par copie d'ECRAN (17 Ko). Il est également possible, grâce aux renseignements fournis de modifier "LETTRES" pour obtenir un court programme BASIC qui évite parfois de... repartir à zéro !
"LETTRES" n'utilisant pas les caractères standards du CPC demande de créer ses propres lettres (ou dessins). A titre d'exemples sont proposées des lettres, simples (I) ou plus complexes (R) qu'il est possible de modifier : elles sont contenues dans un carré de 20 pixels de côté (sauf I = 4x20) et leur "épaisseur" est de 4 pixels ; le début prévoit le décalage vertical (d) et la fin le décalage horizontal (e) entre chaque lettre (voir "R").

Les seules autres variables à connaître sont "p" (n° de stylo) "l" et "h" (coefficients multiplicatifs modifiant la **l**argeur et la **h**auteur des lettres). Le coloriage utilise bien sûr la fonction FILL. Il est possible d'utiliser des obliques mais attention aux concordances de coordonnées en mode 1.

Avec des élèves, il faut donc tracer une matrice quadrillée (format au choix) dans laquelle ils dessineront puis indiqueront les coordonnées des points de changement de direction (leur programme de mathématiques prévoit les repérages dans le plan).
"R" est un court programme (appelé par RUN "R") expliquant un dessin de la lettre R avec une remarque (REM) sur chaque étape de sa "fabrication". Une sortie du listing sur imprimante est souvent suffisante.

NB : - Pour une utilisation sur nanoréseau, il est bon d'écrire un court programme d'appel de "TITREUR" puis du programme de lettres de chaque élève (avec le nom choisi par eux).
- A cause de l'inversion vidéo, éviter d'utiliser la touche ESC ou la neutraliser (après une 1re sauvegarde !) avec ON BREAK CONT (en début de programme).
- Pour une utilisation individuelle, en cas de changement de nom du programme "LETTRES", modifier la ligne 10 de "TITREUR".

```
10 nom$="LETTRES"                       >MB
20 CHAIN MERGE nom$.40.DELETE 20        >ZQ
30 'ATTENTION...la ligne 20 se detr >LC
uit apres le premier 'RUN'
40 CLS:MODE 1:BORDER 0:INK 0.3:INK  >AJ
1,24:INK 2.26:INK 3.18
50 PEN 1:LOCATE 14.2:PRINT"T I T R  >JL
E U R"
60 LOCATE 17.4:PRINT"* * * *"           >WF
70 PEN 2:LOCATE 8.9:PRINT"COMPOSITI >JC
ON"
80 LOCATE 16.14:PRINT"MISE EN PAGE" >EH
90 LOCATE 24.19:PRINT"COLORIAGE"    >BE
100 PEN 1:LOCATE 12.24:PRINT"Presse >ZP
r une Touche"
110 a$=INKEY$:IF a$=""THEN 110      >XC
120 CLS:LOCATE 8.4:PRINT"Entrer (en >GG
 une seule fois)"
130 LOCATE 14.6:PRINT"le MOT choisi >JP
"
140 GOSUB 4010                          >PB
150 LOCATE 20,18:PRINT CHR$(18)         >YB
160 PEN 1:LOCATE 12,18: LINE INPUT" >HM
TITRE = ",t$:t$=UPPER$(t$)
170 IF LEN(t$)<1 THEN 150               >RL
180 aa=0                                >WE
190 FOR i=1 TO LEN(t$)                  >PA
200 u$=MID$(t$,i,1)                     >ML
210 u=ASC(u$)                           >LH
```

```
220 IF u=69 OR u=73 OR u=82 OR u=84 OR u=85 THEN aa=aa+1 >WK
230 NEXT >EA
240 IF aa<>LEN(t$) THEN 150 >UA
250 CLS >UB
260 LOCATE 9,2:PRINT"I N S T R U C T I O N S" >NV
270 LOCATE 14,4:PRINT"* * * * * * * *" >BE
280 PEN 3:LOCATE 2,9:PRINT"REALISATION DU TITRE :" >XH
290 PEN 1:PRINT:PRINT TAB(10)"(3 touches suffisent)" >EW
300 PEN 2:PRINT:PRINT TAB(6)CHR$(242);:PEN 1:PRINT" et ";:PEN 2:PRINT CHR$(243);:PEN 1:PRINT" : ";:PEN 2:PRINT"Choix et Modifications" >PK
310 PEN 2:PRINT:PRINT TAB(6)"°ENTER§";:PEN 1:PRINT": ";:PEN 2:PRINT"Entree des Choix " >BH
320 PRINT TAB(25)"et des Donnees" >FE
330 PEN 3:LOCATE 2,20:PRINT"SAUVEGARDE :";:PEN 2:PRINT"Indications ulterieures" >WM
340 PEN 1:LOCATE 12,24:PRINT"Presser une Touche" >ZW
350 a$=INKEY$:IF a$=""THEN 350 >XQ
360 z=5:z1=3:z2=7:q=0 >QZ
370 '***** ECRITURE  DU  TITRE **** >TA
380 h= 1 :l= 1 :e= 0 :X= 0 :Y= 190 :d= 0 :b= 0 :f= 1 :t= 26 :p= 0 :r= 1 :m= 2 >GA
390 CLS:t$=UPPER$(t$):tit$=t$ >ZB
400 MODE m:INK 0,f:INK 1,t:INK 2,r:BORDER b >KJ
410 ORIGIN X,Y >ZG
420 FOR i=1 TO LEN(tit$) >RA
430 b$=MID$(tit$,i,1) >PU
440 bb=ASC(b$) >RE
450 a=bb-64 >TE
460 IF a<1 OR a>26 THEN a=27 >UB
470 GOSUB 4060 >QC
480 NEXT >EH
490 GOTO 510 >ZF
500 END >RJ
510 ' ******** AIGUILLAGE ********* >RG
520 IF m=2 AND q=0 THEN GOTO 610 >XP
530 IF m=2 AND q=1 THEN GOTO 1780 >YF
540 IF m=2 AND q=2 THEN GOTO 2430 >YA
550 IF m=2 AND q=3 THEN GOTO 2460 >YF
560 IF m=2 AND q=4 THEN GOTO 2940 >YL
570 IF m=1 AND q=0 THEN GOTO 1230 >YX
580 IF m=1 AND q=1 THEN GOTO 2340 >YC
590 IF m=1 AND q=3 THEN GOTO 2370 >YJ
600 IF m=1 AND q=4 THEN GOTO 2940 >YE
610 ' * MASQUE ECRAN (MISE EN PAGE) >RH
620 LOCATE 1,22 >XA
630 FOR i=1 TO 80:PRINT CHR$(154);:NEXT >GM
640 PRINT TAB(2)"Hauteur";:PRINT TAB(10) CHR$(149);:PRINT TAB(12)"Largeur";:PRINT TAB(20) CHR$(149);:PRINT TAB(22)"Espace";:PRINT TAB(30) CHR$(149); >ME
650 PRINT TAB(32)"Origine";:PRINT TAB(40) CHR$(149);:PRINT TAB(42)"Origine";:PRINT TAB(50)CHR$(149);:PRINT TAB(51)"Decalage";:PRINT TAB(60)CHR$(149);:PRINT TAB(62)"Couleur";:PRINT TAB(70)CHR$(149);:PRINT TAB(72)"Couleur" >HD
660 FOR i=1 TO 80:PRINT CHR$(154);:NEXT >GG
670 PRINT TAB(10) CHR$(149);:PRINT TAB(20) CHR$(149);:PRINT TAB(30) CHR$(149);:PRINT TAB(40) CHR$(149);:PRINT TAB(50) CHR$(149);:PRINT TAB(60)CHR$(149);:PRINT TAB(63)"Mode 1";:PRINT TAB(70)CHR$(149);:PRINT TAB(73)"Mode 2" >QD
680 WINDOW #1,1,9,25,25:WINDOW #2,11,19,25,25:WINDOW #3,21,29,25,25:WINDOW #4,31,39,25,25:WINDOW #5,41,49,25,25:WINDOW #6,51,59,25,25:WINDOW #7,1,80,21,21 >FW
690 ' ***** RAPPEL DES VARIABLES ***** >TF
700 PRINT#1," h=";USING "##.#";h >ZU
710 PRINT#2," l=";USING "##.#";l >ZE
720 PRINT#3," e=";USING "####";e >ZE
730 PRINT#4," X=";USING "####";X >ZN
740 PRINT#5," Y=";USING "####";Y >ZT
750 PRINT#6," d=";USING "####";d >ZJ
760 ' **** SELECTION DES FENETRES **** >TD
770 CLS#7:LOCATE #7,z,1:PRINT#7, CHR$(241) >KT
780 a$=INKEY$ >FJ
790 IF a$=CHR$(243) AND z<66 THEN z=z+10:CLS#7:LOCATE #7,z,1:PRINT#7,CHR$(241) >DC
800 IF a$=CHR$(242) AND z>14 THEN z=z-10:CLS#7:LOCATE #7,z,1:PRINT#7,CHR$(241) >DP
810 IF a$=CHR$(13) THEN 830 >TK
820 GOTO 780 >AB
830 IF z=5 THEN PRINT#1,CHR$(24):PRINT#1," h=";USING "##.#";h :GOTO 920 >TK
840 IF z=15 THEN PRINT#2,CHR$(24):PRINT#2," l=";USING "##.#";l:GOTO 970 >VC
850 IF z=25 THEN PRINT#3,CHR$(24):PRINT#3," e=";USING "####":e:GOTO 1020 >VW
860 IF z=35 THEN PRINT#4,CHR$(24):PRINT#4," X=";USING "####";X:GOTO 1070 >WD
870 IF z=45 THEN PRINT#5,CHR$(24):PRINT#5," Y=";USING "####";Y:GOTO 1120 >WF
880 IF z=55 THEN PRINT#6,CHR$(24):PRINT#6," d=";USING "####";d:GOTO 1170 >WE
890 IF z=65 THEN m=1:coul=1:GOTO 390 >DB
900 IF z=75 THEN m=2:q=1:p=0:GOTO 390 >DW
910 ' * MODIFICATION  DES  VARIABLES * >TA
920 a$=INKEY$ >PE
930 IF a$=CHR$(243) AND h<9.6 THEN h=h+0.5:PRINT#1," h=";USING "##.#";h >RB
940 IF a$=CHR$(242) AND h>0.6 THEN h=h-0.5:PRINT#1," h=";USING "##.#";h >RW
950 IF a$=CHR$(13) THEN PRINT#1,CHR$(24):GOTO 390 >RY
960 GOTO 920 >AC
970 a$=INKEY$ >PK
980 IF a$=CHR$(243) AND l<9.6 THEN l=l+0.5:PRINT#2," l=";USING "##.#";l >RE
990 IF a$=CHR$(242) AND l>0.6 THEN l=l-0.5:PRINT#2," l=";USING "##.#";l >RZ
1000 IF a$=CHR$(13) THEN PRINT#2,CHR$(24):GOTO 390 >TC
1010 GOTO 970 >FD
1020 a$=INKEY$ >VH
1030 IF a$=CHR$(243) AND e<600 THEN e=e+5:PRINT#3," e=";USING "####";e >QK
1040 IF a$=CHR$(242) AND e>-600 THEN e=e-5:PRINT#3," e=";USING "####";e >RD
1050 IF a$=CHR$(13) THEN PRINT#3,CHR$(24):GOTO 390 >TJ
1060 GOTO 1020 >LH
1070 a$=INKEY$ >WC
1080 IF a$=CHR$(243) AND X<620 THEN X=X+10:PRINT#4," X=";USING "####";X >RC
1090 IF a$=CHR$(242) AND X>0 THEN X=X-10:PRINT#4," X=";USING "####";X >PP
1100 IF a$=CHR$(13) THEN PRINT#4,CHR$(24):GOTO 390 >TF
1110 GOTO 1070 >LJ
```

```
1120 a$=INKEY$                         >VJ
1130 IF a$=CHR$(243) AND Y<380 THEN >RH
 Y=Y+10:PRINT#5," Y=";USING "####":
Y
1140 IF a$=CHR$(242) AND Y>80 THEN  >QR
Y=Y-10:PRINT#5," Y=";USING "####":Y

1150 IF a$=CHR$(13) THEN PRINT#5,CH >TM
R$(24):GOTO 390
1160 GOTO 1120                      >LK
1170 a$=INKEY$                      >WD
1180 IF a$=CHR$(243) AND d<380 THEN >RK
 d=d+10:PRINT#6," d=";USING "####";
d
1190 IF a$=CHR$(242) AND d>-380 THE >TE
N d=d-10:PRINT#6," d=";USING "####"
:d
1200 IF a$=CHR$(13) THEN PRINT#6,CH >TJ
R$(24):GOTO 390
1210 GOTO 1170                      >MA
1220 RETURN                         >EJ
1230 '* MASQUE ECRAN (COULEUR MODE  >XJ
1) *
1240 LOCATE 1,22                    >DB
1250 FOR i=1 TO 40:PRINT CHR$(154): >HN
:NEXT
1260 PRINT TAB(2)"Bord";:PRINT TAB( >RJ
7) CHR$(149);:PRINT TAB(9)"Fond";:P
RINT TAB(14) CHR$(149);:PRINT TAB(1
5)"Trait";:PRINT TAB(21) CHR$(149);

1270 PRINT TAB(22)"Lettre";:PRINT T >CL
AB(28)CHR$(149);:PRINT TAB(29)"Dess
in";:PRINT TAB(35) CHR$(149);:PRINT
 TAB(37)"Vue"
1280 FOR i=1 TO 40:PRINT CHR$(154): >HR
:NEXT
1290 PRINT TAB(7) CHR$(149);:PRINT  >FG
TAB(14) CHR$(149);:PRINT TAB(21) CH
R$(149);:PRINT TAB(28) CHR$(149);:P
RINT TAB(29)"Retour";:PRINT TAB(35)
 CHR$(149);:PRINT TAB(37)"Fin"
1300 WINDOW #1,1,6,25,25:WINDOW #2, >CX
8,13,25,25:WINDOW #3,15,20,25,25:WI
NDOW #4,22,27,25,25:WINDOW #7,1,40,
21,21
1310 ' **** RAPPEL DES VARIABLES ** >XH
**
1320 PRINT#1," b=";USING "##":b     >YQ
1330 PRINT#2," f=";USING "##";f     >YB
1340 PRINT#3," t=";USING "##":t     >ZA
1350 PRINT#4," r=";USING "##";r     >YG
1360 ' **** SELECTION DES FENETRES  >YC
****
1370 CLS#7:LOCATE #7,z1,1:PRINT#7,  >LB
CHR$(241)
1380 a$=INKEY$                      >WG
1390 IF a$=CHR$(243) AND z1<33 THEN >KG
 z1=z1+7:CLS#7: LOCATE #7,z1,1:PRIN
T#7, CHR$(241)
1400 IF a$=CHR$(242) AND z1>9 THEN  >JA
z1=z1-7:CLS#7: LOCATE #7,z1,1:PRINT
#7, CHR$(241)
1410 IF a$=CHR$(13) THEN 1430       >VY
1420 GOTO 1380                      >MG
1430 IF z1=3 THEN PRINT#1,CHR$(24): >UG
PRINT#1," b=";USING "##":b:GOTO 150
0
1440 IF z1=10 THEN PRINT#2,CHR$(24) >VY
:PRINT#2," f=";USING"##":f:GOTO 155
0
1450 IF z1=17 THEN PRINT#3,CHR$(24) >WF
:PRINT#3," t=";USING"##":t:GOTO 164
0
1460 IF z1=24 THEN p=2:PRINT#4,CHR$ >BV
(24):PRINT#4," r=";USING"##";r:GOTO
 1730
1470 IF z1=31 THEN p=0:m=2:r=f:GOTO >FN
```

```
 390
1480 IF z1=38 THEN g=1:m=1:GOTO 390 >BU

1490 ' * MODIFICATION  DES  VARIABL >YG
ES *
1500 a$=INKEY$                      >WA
1510 IF a$=CHR$(243) AND b<26 THEN  >LC
b=b+1:PRINT#1," b=";USING "##";b
1520 IF a$=CHR$(242) AND b>0 THEN b >KK
=b-1:PRINT#1," b=";USING "##";b
1530 IF a$=CHR$(13) THEN PRINT#1,CH >TK
R$(24):GOTO 390
1540 GOTO 1500                      >MD
1550 a$=INKEY$                      >WF
1560 IF a$=CHR$(243) AND f<26 AND f >YV
<>t THEN f=f+1:PRINT#2," f=";USING
"##";f
1570 IF a$=CHR$(243) AND f<26 AND f >XZ
=t THEN f=t+1:PRINT#2," f=";USING "
##";f
1580 IF a$=CHR$(243) AND f=26 AND t >YW
=26 THEN f=f-1:PRINT#2," f=";USING
"##";f
1590 IF a$=CHR$(242) AND f>0 AND f< >XX
>t THEN f=f-1:PRINT#2," f=";USING "
##";f
1600 IF a$=CHR$(242) AND f>0 AND f= >VB
t THEN f=t-1:PRINT#2," f=";USING "#
#";f
1610 IF a$=CHR$(242) AND f=0 AND t= >VK
0 THEN f=f+1:PRINT#2," f=";USING "#
#";f
1620 IF a$=CHR$(13) THEN PRINT#2,CH >TL
R$(24):GOTO 390
1630 GOTO 1550                      >MJ
1640 a$=INKEY$                      >WF
1650 IF a$=CHR$(243) AND t<26 AND t >ZN
<>f THEN t=t+1:PRINT#3," t=";USING
"##";t
1660 IF a$=CHR$(243) AND t<26 AND t >XW
=f THEN t=f+1:PRINT#3," t=";USING "
##";t
1670 IF a$=CHR$(243) AND t=26 AND f >YH
=26 THEN t=t-1:PRINT#3," t=";USING
"##";t
1680 IF a$=CHR$(242) AND t>0 AND t< >XZ
>f THEN t=t-1:PRINT#3," t=";USING "
##";t
1690 IF a$=CHR$(242) AND t>0 AND t= >WZ
f THEN t=f-1:PRINT#3," t=";USING "#
#";t
1700 IF a$=CHR$(242) AND t=0 AND f= >WN
0 THEN t=t+1:PRINT#3," t=";USING "#
#";t
1710 IF a$=CHR$(13) THEN PRINT#3,CH >TM
R$(24):GOTO 390
1720 GOTO 1640                      >MJ
1730 a$=INKEY$                      >WF
1740 IF a$=CHR$(243) AND r<26 THEN  >MF
r=r+1:PRINT#4," r=";USING "##";r
1750 IF a$=CHR$(242) AND r>0 THEN r >LX
=r-1:PRINT#4," r=";USING "##";r
1760 IF a$=CHR$(13) THEN PRINT#4,CH >TU
R$(24):GOTO 390
1770 GOTO 1730                      >ND
1780 '* MASQUE ECRAN (COULEUR MODE  >YJ
2)
1790 LOCATE 1,22                    >EB
1800 FOR i=1 TO 80:PRINT CHR$(154): >HU
:NEXT
1810 PRINT TAB(6)"Bord";:PRINT TAB( >WF
14) CHR$(149);:PRINT TAB(19)"Fond";
:PRINT TAB(27) CHR$(149);:PRINT TAB
(31)"Trait";:PRINT TAB(40) CHR$(149
);
1820 PRINT TAB(44)"Lettre";:PRINT T >CV
AB(53)CHR$(149);:PRINT TAB(57)"Dess
in";:PRINT TAB(67) CHR$(149);:PRINT
 TAB(72)"Vue"
1830 FOR i=1 TO 80:PRINT CHR$(154): >HX
:NEXT
1840 PRINT TAB(14) CHR$(149);:PRINT >HY
 TAB(27) CHR$(149);:PRINT TAB(40) C
HR$(149);:PRINT TAB(53) CHR$(149);:
PRINT TAB(57)"Retour";:PRINT TAB(67
) CHR$(149);:PRINT TAB(72)"Fin"
1850 WINDOW #1,2,13,25,25:WINDOW #2 >GG
,15,26,25,25:WINDOW #3,28,39,25,25:
WINDOW #4,41,52,25,25:WINDOW #7,1,8
0,21,21
1860 ' **** RAPPEL DES VARIABLES ** >YH
**
1870 PRINT#1,"    b=";USING "##";b  >AT
1880 PRINT#2,"    f=";USING "##";f  >AD
1890 PRINT#3,"    t=";USING "##";t  >AQ
1900 PRINT#4,"    p=";USING "##";p  >AV
1910 ' *** SELECTION DES FENETRES * >YD
**
1920 CLS#7:LOCATE #7,z2,1:PRINT#7,  >LD
CHR$(241)
1930 a$=INKEY$                      >WH
1940 IF a$=CHR$(243) AND z2<66 THEN >LY
 z2=z2+13:CLS#7: LOCATE #7,z2,1:PRI
NT#7, CHR$(241)
1950 IF a$=CHR$(242) AND z2>14 THEN >LV
 z2=z2-13:CLS#7: LOCATE #7,z2,1:PRI
NT#7, CHR$(241)
1960 IF a$=CHR$(13) THEN 1980       >VV
1970 GOTO 1930                      >NH
1980 IF z2=7 THEN PRINT#1,CHR$(24): >YA
PRINT#1,"    b=";USING "##";b:GOTO
2050
1990 IF z2=20 THEN PRINT#2,CHR$(24) >ZG
:PRINT#2,"    f=";USING"##";f:GOTO
2100
2000 IF z2=33 THEN PRINT#3,CHR$(24) >YE
:PRINT#3,"    t=";USING"##";t:GOTO 2
190
2010 IF z2=46 THEN PRINT#4,CHR$(24) >ZA
:PRINT#4,"    p=";USING "##";p:GOTO
 2280
2020 IF z2=59 THEN m=2 :q=0:p=0:r=f >LE
:GOTO 390
2030 IF z2=72 THEN m=2:q=2:GOTO 390 >BL

2040 ' * MODIFICATION  DES  VARIABL >XJ
ES *
2050 a$=INKEY$                      >WB
2060 IF a$=CHR$(243) AND b<26 THEN  >PD
b=b+1:PRINT#1,"    b=";USING "##";b

2070 IF a$=CHR$(242) AND b>0 THEN b >NH
=b-1:PRINT#1,"    b=";USING "##";b
2080 IF a$=CHR$(13) THEN PRINT#1,CH >TL
R$(24):GOTO 390
2090 GOTO 2050                      >MF
2100 a$=INKEY$                      >VH
2110 IF a$=CHR$(243) AND f<26 AND f >BQ
<>t THEN f=f+1:PRINT#2,"    f=";USI
NG "##";f
2120 IF a$=CHR$(243) AND f<26 AND f >AR
=t THEN f=t+1:PRINT#2,"    f=";USIN
G "##";f
2130 IF a$=CHR$(243) AND f=26 AND t >BR
=26 THEN f=f-1:PRINT#2,"    f=";USI
NG "##";f
2140 IF a$=CHR$(242) AND f>0 AND f< >AP
>t THEN f=f-1:PRINT#2,"    f=";USIN
G "##";f
2150 IF a$=CHR$(242) AND f>0 AND f= >ZR
t THEN f=t-1:PRINT#2,"    f=";USING
 "##";f
2160 IF a$=CHR$(242) AND f=0 AND t= >YJ
0 THEN f=f+1:PRINT#2,"    f=";USING
 "##";f
2170 IF a$=CHR$(13) THEN PRINT#2,CH >TM
R$(24):GOTO 390
2180 GOTO 2100                      >MB
2190 a$=INKEY$                      >WG
2200 IF a$=CHR$(243) AND t<26 AND t >BY
<>f THEN t=t+1:PRINT#3,"    t=";USIN
G "##";t
2210 IF a$=CHR$(243) AND t<26 AND t >ZD
=f THEN t=f+1:PRINT#3,"    t=";USING
 "##";t
2220 IF a$=CHR$(243) AND t=26 AND f >AT
=26 THEN t=t-1:PRINT#3,"    t=";USIN
G "##";t
2230 IF a$=CHR$(242) AND t>0 AND t< >ZG
>f THEN t=t-1:PRINT#3,"    t=";USING
 "##";t
```

```
2240 IF a$=CHR$(242) AND t>0 AND t= >YE
f THEN t=f-1:PRINT#3,"    t=";USING
"##";t
2250 IF a$=CHR$(242) AND t=0 AND f= >YD
0 THEN t=t+1:PRINT#3,"    t=";USING
"##";t
2260 IF a$=CHR$(13) THEN PRINT#3,CH >TN
R$(24):GOTO 390
2270 GOTO 2190                      >NA
2280 a$=INKEY$                      >WG
2290 IF a$=CHR$(243) AND p<1 THEN p >PF
=p+1:PRINT#4,"     p=";USING "##";p

2300 IF a$=CHR$(242) AND p>0 THEN p >PZ
=p-1:PRINT#4,"     p=";USING "##";p

2310 IF a$=CHR$(13) THEN PRINT#4,CH >TK
R$(24):GOTO 390
2320 GOTO 2280                      >MG
2330 ' ***** EXAMEN DU TITRE *****  >YA
2340 LOCATE 12,24:PRINT"Presser une >UU
 Touche"
2350 x$=INKEY$:IF x$=""THEN 2350    >ZX
2360 g=3:GOTO 390                   >LB
2370 LOCATE 1,24:PRINT"Dessin='D'   >YN
Couleur='C'  Utilisation='U'"
2380 a$=INKEY$:a$=UPPER$(a$)        >XZ
2390 IF a$="D"THEN m=2:g=0:GOTO 390 >BA

2400 IF a$="C"THEN m=1:g=0:GOTO 390 >BP

2410 IF a$="U"THEN m=1:GOTO 2530    >YW
2420 GOTO 2380                      >MJ
2430 LOCATE 31,24:PRINT"Presser une >UV
 Touche"
2440 x$=INKEY$:IF x$=""THEN 2440    >ZX

2450 g=3:GOTO 390                   >LB
2460 LOCATE 14,24:PRINT"Dessin='D'  >TU
          Couleur='C'          Utili
sation='U'"
2470 a$=INKEY$:a$=UPPER$(a$)        >XZ

2480 IF a$="D"THEN m=2:g=0:GOTO 390 >BA

2490 IF a$="C"THEN m=2:g=1:GOTO 390 >BB

2500 IF a$="U"THEN GOTO 2530        >VC
2510 GOTO 2470                      >MJ
2520 ' ****** UTILISATIONS ******   >YB
2530 CLS:MODE 1:BORDER 0:INK 0,3:IN >CP
K 1,24:INK 2,26:INK 3,18
2540 PEN 1:LOCATE 9,2:PRINT"U T I L >WT
 I S A T I O N S"
2550 LOCATE 14,4:PRINT"* * * * * *  >CP
*"
2560 PEN 2:LOCATE 11,9:PRINT"1..... >UW
COPIE D'ECRAN"
2570 PRINT:PRINT:PRINT TAB(11)"2... >BD
..PROGRAMME BASIC"
2580 PRINT:PRINT:PRINT TAB(11)"3... >QA
..RETOUR"
2590 PRINT:PRINT:PRINT TAB(11)"4... >LP
..FIN"
2600 PEN 1:LOCATE 17,23:PRINT"CHOIX >GG
 ?"
2610 a$=INKEY$                      >WD
2620 IF a$="1"THEN GOTO 2680        >UG
2630 IF a$="2"THEN GOTO 2980        >VD
2640 IF a$="3"THEN g=3:GOTO 390     >XJ
2650 IF a$="4"THEN GOTO 3090        >VA
2660 GOTO 2610                      >NA
2670 ' *** SAUVEGARDE ( ecran ) *** >YH

2680 ON ERROR GOTO 2960             >RM
2690 CLS:MODE 1:BORDER 0:INK 0,3:IN >CX
K 1,24:INK 2,26:INK 3,18
2700 LOCATE 8,2:PRINT"C O P I E   D >QC
 ' E C R A N"
2710 LOCATE 14,4:PRINT"* * * * * *  >CM
*"
2720 PEN 2:LOCATE 7,7:PRINT"L'image >ML
 doit etre conservee"
2730 LOCATE 12,9:PRINT"sous le nom  >RG
de ...."
2740 LOCATE 14,11:PRINT"...:"       >XC
2750 LOCATE 18,11:PRINT CHR$(18)    >ZK
2760 LOCATE 18,11:PEN 1:LINE INPUT" >QV
",titre$:titre$=UPPER$(titre$)
2770 IF LEN(titre$)>12 THEN 2750    >ZU
2780 IF LEN(titre$)<1 THEN 2750     >YP
2790 FOR i=1 TO LEN(titre$)         >VJ
2800 tt$=MID$(titre$,i,1)           >UQ
2810 tt=ASC(tt$)                    >LU
2820 IF tt=46 OR tt>47 AND tt<58 OR >ND
 tt>64 AND tt<91 THEN 2840 ELSE 275
0
2830 NEXT                           >LE
2840 PEN 3:LOCATE 2,14:PRINT"Couleu >HH
rs par defaut lors du chargement"
2850 PEN 2:LOCATE 8,16:PRINT"donc N >KT
oter OBLIGATOIREMENT:"
2860 PEN 3:LOCATE 1,19:PRINT"MODE"; >ZH
m;":BORDER";b;":INK 0,";f;":INK 1,"
;t
2870 IF m=1 AND r<>0 THEN LOCATE 1, >XG
21:PRINT":INK 2,";r
2880 PEN 1:LOCATE 7,24:PRINT"COPIE  >ZV
='C'":LOCATE 23,24:PRINT"RETOUR ='R
'"
2890 a$=INKEY$:a$=UPPER$(a$)        >XF
2900 IF a$="C"GOTO 2930             >QG
2910 IF a$="R"GOTO 2530             >QV
2920 GOTO 2890                      >NK
2930 g=4:GOTO 390                   >LF
2940 SAVE titre$,b,49152,16384      >YK
2950 GOTO 2530                      >ND
2960 IF ERR=32 THEN CLS:RESUME 2530 >CG

2970 '******** PROGRAMME BASIC **** >ZA
****
2980 CLS:PEN 1:LOCATE 13,2:PRINT"PR >WT
OGRAMME BASIC"
2990 LOCATE 16,4:PRINT"* * * * *"   >ZL
3000 PEN 2:LOCATE 3,6:PRINT"Remplac >MZ
er les 12 premieres Lignes de":LOCA
TE 8,8:PRINT"....";nom$;"....par:"
3010 PEN 3:LOCATE 1,11:PRINT" CLS"; >CK
":MODE";m;":BORDER";b
3020 PRINT:PRINT" INK 0,";f;":INK 1 >VX
,";t;:IF m=1 THEN PRINT":INK 2,";r:

3030 LOCATE 1,15:PRINT" ORIGIN";x;" >HE
,";y
3040 PRINT:PRINT" d=";d;":h=";h;":l >DT
=";l;":e=";e;":p=";p
3050 PEN 2:LOCATE 3,20:PRINT"Appele >XM
r les Lettres par des GOSUB"
3060 PEN 1:LOCATE 12,24:PRINT"Press >AR
er une Touche"
3070 a$=INKEY$:IF a$=""THEN 3070    >YF
3080 GOTO 2530                      >MJ
3090 CLS:MODE 1:BORDER 1:INK 0,1:IN >MV
K 1,24:END
3100 '***** DESSIN DES LETTRES **** >XG
```

LETTRES

```
4000 CLS:MODE 1:LOCATE 6,13:PRINT"S >ZR
'utilise avec 'T I T R E U R'":END
4010 '***** Lettres disponibles *** >XH
4020 PEN 2:LOCATE 5,10:PRINT"LETTRE >BE
S disponibles:"
4030 LOCATE 10,12:PRINT"E,I,R,T,U,. >JN
....."
4040 RETURN                         >FB
4050 'la ligne 4060 (qui doit toujo >YB
urs porter ce numero) prevoit un cl
assement alphabetique
4060 ON a GOSUB 4100,4100,4100,4100 >BY
,4220,4100,4100,4100,4190,4100,4100
,4100,4100,4260,4100,4100,4100,4120
,4100,4160,4250,4100,4100,4100,4100
,4100,4100
4070 '***************************** >YD
4080 '      DESSIN  des  LETTRES    >YE
4090 '***************************** >YF
4100 RETURN:REM lettres NON disponi >KM
bles
4110 '***************************** >XJ
4120 '**********  Lettre R  ******* >XK
```

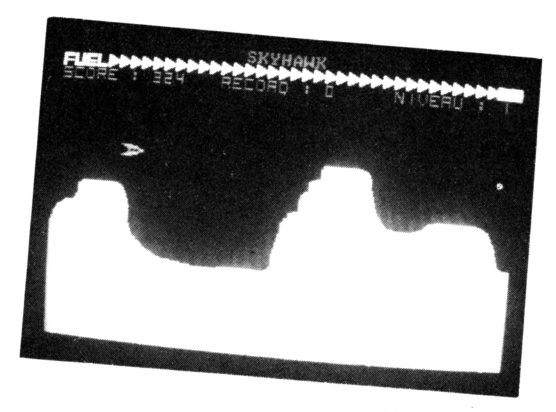
```
4130 MOVER 0,d:DRAWR 0*1,20*h:DRAWR >KB
 20*1,0*h:DRAWR 0*1,-12*h:DRAWR -4*
1,0*h:DRAWR 0*1,-4*h:DRAWR 4*1,0*h:
DRAWR 0*1,-4*h:DRAWR -8*1,0*h:DRAWR
 0*1,8*h:DRAWR -8*1,0*h:DRAWR 0*1,-
8*h:DRAWR -4*1,0*h
4140 MOVER 4*1,12*h:DRAWR 0*1,4*h:D >WV
RAWR 12*1,0*h:DRAWR 0*1,-4*h:DRAWR
-12*1,0*h:MOVER 2*1,2*h:FILL 0:MOVE
R -4*1,-12*h:FILL p:MOVER 18*1,-2*h
:MOVER 4*1+e,0*h
4150 RETURN                         >FD
4160 '********** Lettre T ******* >YD
4170 MOVER 0,d:MOVER 8*1,0*h:DRAWR >GJ
0*1,16*h:DRAWR -8*1,0*h:DRAWR 0*1,4
*h:DRAWR 20*1,0*h:DRAWR 0*1,-4*h:DR
AWR -8*1,0*h:DRAWR 0*1,-16*h:DRAWR
-4*1,0*h:MOVER 2*1,2*h:FILL p:MOVER
 10*1,-2*h:MOVER 4*1+e,0*h
4180 RETURN                         >FG
4190 '********** Lettre I ******* >YG
4200 MOVER 0,d:DRAWR 0*1,20*h:DRAWR >JC
 4*1,0*h:DRAWR 0*1,-20*h:DRAWR -4*1
,0*h:MOVER 2*1,2*h:FILL p:MOVER 2*1
,-2*h:MOVER 4*1+e,0*h
4210 RETURN                         >FA
4220 '********** Lettre E ******* >YA
4230 MOVER 0,d:DRAWR 0*1,20*h:DRAWR >TV
 20*1,0*h:DRAWR 0*1,-4*h:DRAWR -16*
1,0*h:DRAWR 0*1,-4*h:DRAWR 8*1,0*h:
DRAWR 0*1,-4*h:DRAWR -8*1,0*h:DRAWR
 0*1,-4*h:DRAWR 16*1,0*h:DRAWR 0*1,
-4*h:DRAWR -20*1,0*h:MOVER 2*1,2*h:
FILL p:MOVER 18*1,-2*h:MOVER 4*1+e,
0*h
4240 RETURN                         >FD
4250 '********** Lettre U ******* >YD
4260 MOVER 0,d:DRAWR 0*1,20*h:DRAWR >XF
 4*1,0*h:DRAWR 0*1,-16*h:DRAWR 12*1
,0*h:DRAWR 0*1,16*h:DRAWR 4*1,0*h:D
RAWR 0*1,-20*h:DRAWR -20*1,0*h:MOVE
R 2*1,2*h:FILL p:MOVER 18*1,-2*h:MO
VER 4*1+e,0*h
4270 RETURN                         >FG
```

R

```
10 CLS:MODE 2:ORIGIN 420,40:d=0:1=5 >RN
:h=5:p=1:e=0
20 PRINT TAB(28)"- DESSIN de la let >QL
tre R -"
30 REM decal.vert.                  >NA
40 MOVER 0,d                        >CK
50 REM dessin du contour de la lett >FL
re
60 DRAWR 0*1,20*h:DRAWR 20*1,0*h:DR >EZ
AWR 0*1,-12*h:DRAWR -4*1,0*h:DRAWR
0*1,-4*h:DRAWR 4*1,0*h:DRAWR 0*1,-4
*h:DRAWR -8*1,0*h:DRAWR 0*1,8*h:DRA
WR -8*1,0*h:DRAWR 0*1,-8*h:DRAWR -4
*1,0*h
70 REM curs.au bas gauche du "trou" >DF
80 MOVER 4*1,12*h                   >LW
90 REM dessin du "trou"             >UB
100 DRAWR 0*1,4*h:DRAWR 12*1,0*h:DR >JF
AWR 0*1,-4*h:DRAWR -12*1,0*h
110 REM curseur dans le "trou"      >ZR
120 MOVER 2*1,2*h                   >LK
130 REM color. du "trou" (fond)     >ZU
140 FILL 0                          >HE
150 REM curs.dans la lettre         >WY
160 MOVER -4*1,-12*h                >NM
170 REM choix du stylo (color.)     >ZU
180 FILL p                          >MA
190 REM curs.au bas droit de la let >FX
tre
200 MOVER 18*1,-2*h                 >MZ
210 REM espace et decal.horiz.      >ZQ
220 MOVER 4*1+e,0*h                 >NF
230 LIST 30-220                     >UE
```

SKYHAWK

Paul-Henri RENARD





Voici un jeu d'arcade comprenant 9 tableaux et qui devrait faire remonter de vieux souvenirs aux possesseurs des premières calculatrices programmables.

Il s'agit d'une simulation d'atterrissage comprenant les effets d'attraction et d'inertie. Seulement, dans le cas présent cela se déroule sur l'écran de l'Amstrad, en couleur et en bruitages. Lors du menu, il faut utiliser les touches du curseur ou le joystick pour choisir une option puis appuyer sur espace ou sur "Fire". En tapant ENTER vous sortirez du programme. Il y a deux listings à taper : le premier sera sauvé sous le nom de SKYHAWK et le second avec le nom SKYHAWK 1.

SKYHAWK

```
10 DEG                              >KD
20 BORDER 0:DIM a(16):FOR i=0 TO 15 >YR
:READ a:INK i.a:a(i)=a:NEXT:DATA 0.
20,3,15.6.7.17,5,11,2,1,10,18.21.22
.25
30 MODE 0:TAG:PEN 12:MOVE 208.394:P >BC
RINT "________";:MOVE 208,398:PRINT"
SKYHAWK";:TAGOFF:PEN 3:LOCATE 11,25
:PRINT"P-H RENARD";:n=635
40 FOR i=0 TO 640 STEP 15:MOVE 320, >CY
200
50 DRAW i.50-30*SIN(i/2),p:n=n-15:M >BX
OVE 320,200:DRAW n,350-30*SIN(i/2),
p:p=p+1:IF p>15 THEN p=1
60 NEXT i                           >GJ
70 p=1:FOR i=100 TO 300 STEP 15:MOV >JC
E 250,200
80 DRAW 50-30*COS(i+300/1.8)+5*SIN( >WC
i),i,p:MOVE 390,200:DRAW 590-30*COS
(i+300/1.8)+5*SIN(i).i+15,p:p=p+1:I
F p>15 THEN p=1
90 NEXT                             >YK
100 FOR h=1 TO 2:RESTORE 130:FOR i= >UZ
```



```
1 TO 48:x=INT(RND*640)+1:y=INT(RND*
400)+1:a(16)=a(1):FOR j=1 TO 15:INK
 j,a(j):a(j)=a(j+1):NEXT:READ fr.du
:SOUND 1,fr,du:SOUND 2,fr/3,du:SOUN
D 4,fr/5,du
110 PLOT x,y,p:p=p+1:IF p>15 THEN p >EZ
=1
120 NEXT i,h                        >DA
130 DATA 127.10.127,10,142,10,159,2 >DF
0,213,10,159,20,127,10,127,20,142,1
0.127.10,127,10.142,10,159,20,213,1
0,159,20,127,10,127,30,142,10,127,1
0.119,10,106.20,95.10,106,20,142,10
,106,10,106,10,119,10,127,20,142,10
,159,30,159,10,142,10,127,10,142,20
,119.10
140 DATA 127.20,190.10,159.10,127,1 >FT
0,142,10,159,20,169,10,190,10,127.1
0,142,10,159,10,169,10,159,40
150 RUN"!skyhawk1"                  >QP
```

SKYHAWK 1

```
1 '********************************* >FA
****
2 '*                                 >FB
  *
3 '*            SKYHAWK              >FC
  *
4 '*                                 >FD
  *
5 '*       Paul-Henri RENARD         >FE
  *
6 '*                                 >FF
  *
7 '********************************* >FG
****
10 ON BREAK GOSUB 1480:DIM pl(10,2) >BZ

20 DEFINT a-z:j1=0:j2=8:j3=1:SYMBOL >QP
 AFTER 32:MODE 1:PRINT CHR$(23):CHR
$(1)::GOTO 1000
30 PAPER#1.0:INK 0,0:INK 1.2:INK 2. >FQ
15:INK 3,6:BORDER 0:PAPER 0:CLS:PEN
 3:PRINT TAB(17)"SKYHAWK"
40 WINDOW#1,1,40,4,25:ENV 1,8,-1,18 >VQ
:ENV 2,15,-1,5:ENV 4,5,-2,50:GOSUB
650
50 o$=CHR$(240)+CHR$(241):f$=CHR$(2 >BE
43)+CHR$(244)+CHR$(245)+CHR$(246):h
=0:s=0:c=2:cc=15:ccc=6
60 PEN 3:LOCATE 1,3:PRINT"SCORE :   >TQ
     ":LOCATE 15,3:PRINT"RECORD :"r
:LOCATE 30,3:PRINT "NIVEAU :";n
70 RESTORE:GOSUB 550:aa$="Appuyez s >XX
ur <ESPACE> pour commencer":LOCATE
4.6:FOR i=1 TO LEN(aa$) STEP 3:FOR
j=1 TO 3:PEN j:PRINT MID$(aa$,i+j-1
,1)::NEXT j,i
80 WHILE INKEY(47)<>0:c=c+1:cc=cc+1 >AX
:ccc=ccc+1:IF c>26 THEN c=0 ELSE IF
 cc>26 THEN cc=0 ELSE IF ccc>26 THE
N ccc=0
90 INK 1,c:INK 2,cc:INK 3,ccc:FOR i >YA
=1 TO 100:NEXT:WEND
100 INK 1,2:INK 2.15:INK 3.6:LOCATE >KN
 4.6:PRINT SPACE$(35):GOTO 120
110 GOSUB 550                       >HB
120 GOSUB 540:TAGOFF                >PJ
130 f=576:PEN 2:TAGOFF:LOCATE 1,2:P >KV
RINT f$STRING$(36.242):PEN 1
140 xs=0:ys=0:y=348:x=2:t=0:x1=0:y1 >NJ
=0:gel=0
150 PRINT CHR$(23)CHR$(1);:TAG      >YR
160 PLOT -2,-2,3:IF f<=0 THEN GOSUB >PF
 360:GOTO 220
170 IF gel=0 THEN t=t+1:IF t=5 THEN >QJ
 t=0:GOSUB 360
180 IF INKEY(79)=0 THEN 20          >TM
190 IF INKEY(j3)=0 THEN SOUND 130,0 >JT
,0,8,1,,20:gel=0:GOSUB 330:IF xs<8
THEN xs=xs+2
200 IF INKEY(j2)=0 THEN SOUND 129,0 >KZ
,0,8,1,,20:gel=0:GOSUB 330:IF xs>-8
 THEN xs=xs-2
210 IF INKEY(j1)=0 THEN SOUND 132,0 >KU
,0,8,1,,30:gel=0:GOSUB 330:IF ys>-6
 THEN ys=ys-1
220 x=x+xs:y=y-ys                   >NT
230 IF y>350 OR y<34 THEN ys=0      >WB
240 IF x>608 THEN x=608:xs=0        >WP
250 IF x<0 THEN x=0:xs=0            >RY
260 MOVE x1,y1-16:PRINT o$;         >WA
270 MOVE x,y-16:PRINT o$;           >UG
280 IF gel=0 THEN te=TEST(x-2,y-34) >TB
 OR TEST(x+18,y-34) OR TEST(x-2,y-1
6) OR TEST(x+18.y-16) OR TEST(x+34,
y-22) OR TEST(x+34,y-28):IF te>1 TH
EN 490
290 IF gel=0 THEN IF TEST(x+2,y-32) >ZY
=1 AND TEST(x+28,y-32)=1 AND ys<3 T
HEN 450
300 x1=x:y1=y:IF f<150 AND ff=0 THE >MJ
N GOSUB 320
310 GOTO 160                        >YH
320 ff=1:EVERY 50,3 GOSUB 350:RETUR >EA
N
330 IF f>0 THEN f=f-2:MOVE f+64,368 >PV
:DRAWR 0,14,3
340 RETURN                          >ZC
350 SOUND 129,50,5:RETURN           >UA
360 IF xs>=2 THEN xs=xs-in          >VF
370 IF xs<=-2 THEN xs=xs+in         >WV
380 IF ys<16 THEN ys=ys+pe          >VW
390 RETURN                          >ZH
400 ff=0:re=REMAIN(3):WHILE f>0:f=f >XL
-2:MOVE f+64,368:DRAWR 0,14.3:s=s+1
:GOSUB 540:SOUND 1,520-f,6,10:WEND
410 GOTO 110                        >YD
420 ff=0:re=REMAIN (3):TAGOFF:LOCAT >HH
E 16,10:PEN 1:PRINT"game over":TAG:
MOVE 216,256:PRINT CHR$(248);:MOVE
216,240:PRINT CHR$(249);:MOVE 390,2
56:PRINT CHR$(248);:MOVE 390,240:PR
INT CHR$(249);:TAGOFF:SPEED INK 5,5
:INK 1,2,15:INK 2,15,6:INK 3,6,2:GO
SUB 980
430 FOR i=1 TO 4000:NEXT:INK 1,2:IN >CR
K 2,15:INK 3,6:IF s>r THEN r=s:LOCA
TE 13,18:PEN 3:PRINT " record battu
 !! ";:GOSUB 1460
440 GOTO 20                         >RG
450 a=x+16:b=y-34:FOR i=0 TO pl     >YU
460 IF pl(i,0)<>-1000 AND a>pl(i,1) >BN
AND a<pl(i,1)+pl(i,0)AND b<pl(i,2)A
ND b>pl(i,2)-8 THEN SOUND 129,119,5
0:SOUND 130,40,50:SOUND 132,24,50:F
OR i1=0 TO 6 STEP 4:MOVE pl(i,1),pl
(i,2)-i1:DRAWR pl(i,0)-2,0,1:NEXT:s
=s+pl(i,0):pl(i,0)=-1000:upl=upl-1:
i=1000
470 NEXT:IF upl<1 THEN 400          >UB
480 gel=1:ys=0:xs=0:GOSUB 540:GOTO  >GL
290
490 SOUND 130,0,-1,15,4,0,30:i1=0:F >ZY
OR i=1 TO 100:INK 0,3,9
500 FOR j=1 TO 25:NEXT:IF i/5=INT(i >DE
/5) THEN i1=i1 XOR 1:IF i1=1 THEN M
OVE x,y-16:PRINT o$;ELSE MOVE x+8,y
-16:PRINT CHR$(247);
510 NEXT                            >EB
520 FOR i=1 TO n*15:GOSUB 330:NEXT  >BD
530 MOVE x,y-16:PRINT o$;:TAG:INK 0 >LL
,0:FOR i=1 TO 2000:NEXT:xs=0:ys=0:y
=348:x=2:t=0:x1=0:y1=0:gel=0:IF f>0
 THEN 160 ELSE GOTO 420
540 TAGOFF:PEN 3:LOCATE 8,3:PRINT s >MK
:PEN 1:LOCATE 1,1:TAG:RETURN
550 pl=0:CLS#1:TAGOFF:PRINT CHR$(23 >MK
)CHR$(0)
560 READ v,w:IF v=-1 THEN GOSUB 139 >XD
0:RESTORE:GOTO 560
570 p=0:READ a,b:IF a=-1 THEN upl=p >XV
l:pl=pl-1:RETURN
580 IF a<0 THEN a=-a:p=1:pl(pl,1)=v >ZG
:pl(pl,2)=w:pl(pl,0)=ABS(a-v):pl=pl
+1
590 IF a<v THEN sc=0 ELSE sc=2      >XN
600 dx=a-v:dy=b-w:l=SQR(dx*dx+dy*dy >GF
```



```
)
610 FOR e=0 TO 1 STEP 2                   >PU
620 sc=sc+(sc=3)-(sc=2):MOVE v+e*dx       >KE
/1,w+e*dy/1:DRAWR 0,-400,sc
630 IF p=1 THEN MOVE(v+e*dx/1),(w+e       >YC
*dy/1):DRAWR 0,-6,1
640 NEXT:v=a:w=b:GOTO 570                 >VV
650 SYMBOL 65,0,126,66,66,126,66,66       >UG
,66:SYMBOL 67,0,126,64,64,64,64,64,
126:SYMBOL 68,0,124,66,66,66,66,66,
124:SYMBOL 69,0,126,64,64,120,64,64
,126
660 SYMBOL 72,0,66,66,66,126,66,66,       >NT
66:SYMBOL 73,0,8,8,8,8,8,8,8:SYMBOL
 75,0,34,34,36,56,36,34,34:SYMBOL 7
8,0,98,98,82,90,74,70,70
670 SYMBOL 79,0,60,66,66,66,66,66,6       >EG
0:SYMBOL 82,0,126,66,66,126,68,66,6
6:SYMBOL 83,0,126,64,64,126,2,2,126
:SYMBOL 85,0,66,66,66,66,66,66,60:S
YMBOL 86,0,66,66,66,66,66,36,24
680 SYMBOL 48,0,124,68,68,68,68,68,       >DB
124:SYMBOL 49,0,4,4,4,4,4,4,4:SYMBO
L 50,0,124,4,4,124,64,64,124:SYMBOL
 51,0,124,4,4,60,4,4,124:SYMBOL 52,
0,68,68,68,124,4,4,4
690 SYMBOL 53,0,124,64,64,124,4,4,1       >XV
24:SYMBOL 54,0,64,64,64,124,68,68,1
24:SYMBOL 55,0,124,4,4,4,4,4,4:SYMB
OL 56,0,124,68,68,124,68,68,124:SYM
BOL 57,0,124,68,68,124,4,4,4
700 SYMBOL 240,255,63,15,6,6,15,63,       >DQ
255
710 SYMBOL 241,0,240,248,79,79,248,       >DD
240
720 SYMBOL 242,192,240,252,255,255,       >MA
252,240,192
730 SYMBOL 243,254,254,192,192,254,       >MU
192,192,192
740 SYMBOL 244,198,198,198,198,198,       >ML
198,254,254
750 SYMBOL 245,254,254,192,192,254,       >MW
192,254,254
760 SYMBOL 246,192,192,192,192,192,       >MB
192,254,254
770 SYMBOL 247,28,63,63,127,126,126       >EB
,28
780 SYMBOL 248,24,24,126,126,24,24,       >FT
24,24
790 SYMBOL 249,255,129,255                >UC
800 RETURN                                >ZD
810 DATA 21,90,1,100,49,106,83,108,       >GD
-155,108,171,108,211,104,249,96,285
,80,311,72,363,64,433,58,-515,58,52
5,58,539,62,559,78,573,88,589,96,60
9,110,619,120,627,130,637,144,-1,
820 DATA 21,90,1,100,1,134,1,156,5,       >LC
170,13,180,21,186,29,186,35,190,39,
200,39,210,45,214,-89,214,93,214,99
,210,105,198,109,180,109,162,115,14
6,133,130,155,118,209,110,249,112,-
287,112,295,112,307,114,313,122,313
,136,323,172,323,180,327,186,333,18
6
830 DATA 333,194,335,194,339,196,34       >PE
7,196,347,214,349,220,353,224,359,2
24,359,238,363,240,369,242,375,242,
375,256,379,260,-427,260,431,260,43
7,258,441,254,443,234,451,204,465,1
84,481,180,499,180,517,186,525,194,
535,196,-583,196,589,196,599,192,60
5,186,613
840 DATA 170,619,142,625,136,629,13       >XL
6,633,136,637,136,-1,
850 DATA 21,90,1,100,1,126,11,140,3       >AR
7,156,77,162,-131,162,145,162,153,1
60,161,154,167,140,173,86,173,54,17
7,44,185,40,-237,40,243,42,247,50,2
47,92,255,132,261,142,279,148,279,1
74,283,178,293,178,293,204,299,208,
-351,208,357,208,359,206,359,178,36
5,174
860 DATA -407,174,413,174,419,170,4       >HN
55,80,473,74,-541,74,547,78,553,86,
559,108,567,116,-625,116,633,114,63
7,108,-1,
870 DATA 21,90,1,100,1,112,9,112,13       >MH
,114,19,120,27,134,35,142,47,146,-9
7,146,115,144,127,140,135,132,143,1
14,157,108,-221,108,227,108,239,110
,245,114,251,122,259,138,265,144,28
5,148,303,148,313,146,323,138,327,1
24,329,96,325,86,309,78,263,74,247,
64,243,42
880 DATA 249,34,259,28,-301,28,343,       >GP
28,371,28,385,30,397,34,405,40,409,
48,415,62,419,80,419,118,421,124,42
7,128,441,128,441,174,447,180,461,1
80,461,214,467,220,-517,220,525,220
,535,214,543,196,545,180,551,172,55
7,168,-607,168,615,168,623,166,633,
158,-1,
890 DATA 21,90,1,100,1,272,9,278,35       >NN
,282,41,278,49,264,53,238,65,224,75
,218,-125,218,135,220,141,228,145,2
58,149,264,155,268,-201,268,207,268
,213,264,219,250,223,234,225,200,22
1,178,213,166,191,152,171,148,163,1
42,155,128,153,108,157,82,161,66,17
1,60,-227
900 DATA 60,233,60,239,64,245,74,25       >GH
1,94,257,104,267,122,273,172,277,22
0,285,230,291,230,299,222,303,208,3
09,194,317,194,325,192,329,188,333,
176,337,124,331,116,323,110,315,96,
309,66,309,42,315,26,323,22,-387,22
,391,26,393,32,399,120,403,124,411,
128,417
910 DATA 128,417,176,419,182,425,18       >NT
8,435,188,449,220,457,226,465,226,-
503,226,513,226,519,224,525,216,527
,206,521,192,515,174,509,136,501,12
4,485,100,479,72,479,50,487,30,505,
20,-559,20,563,20,569,28,575,70,581
,76,589,80,591,80,-633,80,637,80,-1
,
920 DATA 21,90,1,100,29,108,63,140,       >FQ
81,188,89,256,-301,256,313,262,323,
268,347,286,361,270,385,256,-551,25
6,557,222,573,172,587,140,-637,140,
638,140,-1,
930 DATA 21,90,1,100,25,154,67,186,       >MM
141,204,-199,204,217,204,255,188,28
5,154,285,112,269,80,235,66,195,66,
167,54,145,32,145,10,-287,10,307,18
,329,38,361,68,373,120,367,164,369,
192,377,230,407,276,469,316,517,330
,593,322,625,330,637,330,-1,
940 DATA 21,90,1,100,19,174,-65,174       >XD
,-135,174,-177,174,-243,174,279,174
,-339,174,-383,174,-471,174,-515,17
4,-555,174,599,174,637,174,-1,
950 DATA 21,90,1,100,17,76,33,66,55       >DA
,58,79,52,105,56,123,74,137,112,149
,166,163,220,185,256,209,278,235,29
0,281,298,371,304,451,296,525,274,5
41,260,543,236,525,214,479,212,425,
218,349,238,273,232,223,202,205,160
,209,144,-273,144,283,144,299,132,2
91,108
960 DATA 269,96,243,98,209,90,201,7       >RB
4,207,52,221,40,-277,40,299,32,347,
24,391,36,435,74,453,128,475,168,-5
71,168,595,188,615,212,623,238,623,
268,613,294,597,310,603,320,623,330
,637,330,-1,
970 DATA -1,                              >VF
980 RESTORE 990:FOR i=1 TO 11:READ        >HN
fr,du,es:SOUND 1,fr,du,15:FOR j=1 T
O es*2.3:NEXT:NEXT:RETURN
990 DATA 426,40,600,426,50,500,426,       >JQ
30,300,426,30,600,358,50,500,379,30
,300,379,30,500,426,30,300,426,30,5
00,451,30,300,426,25,100
1000 in=1:pe=1:n=0:MODE 1:INK 0,1:I       >QX
NK 1,24:INK 2,11:INK 3,6:BORDER 15:
PEN 3:LOCATE 16,1:PRINT"*********":
LOCATE 16,2::PRINT"*";:PEN 1:PRINT"
SKYHAWK";:PEN 3:PRINT"*":LOCATE 16,
3:PRINT"*********":WINDOW#1,3,20,6,
22:PAPER#1,3:CLS#1
```



```
1010 PEN#1,2:PRINT#1:PRINT#1," Regl >ZU
es":PRINT#1:PRINT#1," Joystick/Clav
ier":PRINT#1:PRINT#1," Debutant":PR
INT#1:PRINT#1," Confirme":PRINT#1:P
RINT#1," As":PRINT#1:PRINT#1," Attr
action":PRINT#1:PRINT#1," Inertie":
PRINT#1:PRINT#1," Play the Game":ii
=0
1020 GOSUB 1030:GOTO 1040           >TJ
1030 MOVE 42,308-ii:DRAWR 268,0,2:D >CP
RAWR 0,-26:DRAWR -268,0:DRAWR 0,26:
RETURN
1040 WHILE INKEY$="":WEND:IF INKEY( >JV
47)=0 OR INKEY(76)=0 THEN PRINT" ":
IF ii=224 THEN ii=0:GOTO 30 ELSE ON
 ii/32+1 GOSUB 1100,1170,1200,1250,
1300,1350,1370
1050 IF INKEY(18)=0 OR INKEY(6)=0 T >MC
HEN INK 1,24:BORDER 1:MODE 1:END
1060 IF INKEY(0)=0 OR INKEY(72)=0 T >CG
HEN GOSUB 1030:ii=ii+(32*(ii>0)):GO
SUB 1030
1070 IF INKEY(2)=0 OR INKEY(73)=0 T >FU
HEN GOSUB 1030:ii=ii-(32*(ii<224)):
GOSUB 1030
1080 GOTO 1040                      >MB
1090 SOUND 1,239,12,8:GOSUB 1030:FO >EL
R j=1 TO 25:NEXT:GOTO 1040
1100 WINDOW#2,23,38,7,21:PAPER#2,2: >LD
CLS#2:PEN#2,3:PRINT#2," SKYHAWK est
 un jeu d'arcade se  deroulant sur
  plusieurs ta-  bleaux de diffi-cu
lte croissante  Si vous arri- vez a
u terme de  ces 9 tableaux vous aur
ez droita une petite me-";
1110 PRINT#2,"lodie : Le Til- leul  >DX
de Schubert    <ESPACE>":GOSUB 1160

1120 CLS#2:PRINT#2," Votre mission  >ZU
  est d'atterrir  sur les plates-fo
rmes disposeesca et la. Malheu reus
ement vous devez vous posera vitess
e redui-te pour eviter  un crash !
L'at-traction et l'i-nertie present
essur cette plane-te  <ESPACE>"
1130 GOSUB 1160:CLS#2:PRINT#2,"  vo >HC
us poseront  des problemes. Evitez
aussi les parois ! Avant  de commen
cer la partie vous de-vez selection
nerle niveau de difficulte qui vous
 convient et e-  ventuellement   ch
anger diffe- rents parametres    <E
SPACE>"
1140 GOSUB 1160:CLS#2:PRINT#2,"(gra >RM
vitation et inertie). Pour  revenir
 au menu pendant une par-tie, appuy
ez une fois sur <DELE-TE>. Vous dev
ez  choisir un ni- veau de difficul
te avant chaque partie (sans ce-la
vous accedez au mode "entrai-":
1150 PRINT#2,"nement").        BON >CY
NE CHANCE":FOR i=1 TO 25000:NEXT:PA
PER#2,0:CLS#2:RETURN
1160 WHILE INKEY(47)<>0:WEND:FOR i= >WU
1 TO 50:NEXT:SOUND 1,1000,50:RETURN

1170 WINDOW#2,23,38,13,15:PAPER#2,2 >JA
:CLS#2:PEN#2,3:PRINT#2,"    Joystic
k             ou          fleches ? J/F
":WHILE INKEY(53)<>0 AND INKEY(45)<
>0:WEND
1180 IF UPPER$(INKEY$)="J" THEN j1= >RM
72:j2=74:j3=75 ELSE j1=0:j2=8:j3=1
1190 PAPER#2,0:CLS#2:RETURN         >XP
1200 IF n<>0 THEN ON n GOSUB 1220,1 >HW
230,1240
1210 n=1:ii=64:GOSUB 1030:RETURN    >BL
1220 RETURN                         >EJ
1230 ii=96:GOSUB 1030:RETURN        >XH
1240 ii=128:GOSUB 1030:RETURN       >YD
1250 IF n<>0 THEN ON n GOSUB 1270,1 >HT
280,1290
1260 n=2:ii=96:GOSUB 1030:RETURN    >BY
1270 ii=64:GOSUB 1030:RETURN        >XG
1280 RETURN                         >FE
1290 ii=128:GOSUB 1030:RETURN       >YJ
1300 IF n<>0 THEN ON n GOSUB 1320,1 >HA
330,1340
1310 n=3:ii=128:GOSUB 1030:RETURN   >CU
1320 ii=64:GOSUB 1030:RETURN        >XC
1330 ii=96:GOSUB 1030:RETURN        >XJ
1340 RETURN                         >FB
1350 WINDOW#2,23,38,11,17:PAPER#2,2 >MT
:CLS#2:PEN#2,3:LOCATE#2,1,2:PRINT#2
,"  taux  normal     de pesanteur
     0            nouveau taux
 (0/9)":a$="":WHILE INKEY$<>"":WEND
:WHILE pe<48 OR pe>57:WHILE a$="":a
$=INKEY$:WEND:pe=ASC(a$):WEND
1360 pe=(10+pe-48)/10:PRINT" ":PAPE >ZH
R#2,0:CLS#2:RETURN
1370 WINDOW#2,23,38,11,17:PAPER#2,2 >JD
:CLS#2:PEN#2,3:LOCATE#2,1,2:PRINT#2
,"  taux  normal      d' inertie
     0            nouveau taux
 (0/9)":a$="":WHILE INKEY$<>"":WEND
:WHILE in<48 OR in>57:WHILE a$="":a
$=INKEY$:WEND:in=ASC(a$):WEND
1380 in=(10+in-48)/10:PRINT" ":PAPE >ZP
R#2,0:CLS#2:RETURN
1390 FOR i=1 TO 100:RESTORE 1400:NE >PL
XT:FOR j=1 TO 72:READ i1,i2,i3,i4,i
5,i6:SOUND 1,i1,i2*1.2:SOUND 2,i3,i
4*1.2:SOUND 4,i5,i6*1.2:NEXT:RETURN
1400 DATA 119,10,142,10,179,10,119, >PG
30,142,30,179,30,142,10,179,10,239,
10,142,10,179,10,239,10,142,10,179,
10,239,10,142,20,179,20,239,20,179,
20,239,20,284,20,0,10,0,10,0,10,179
,10,239,10,284,10,159,30,190,30,239
,30,142,10,179,10,239,10,134,15,159
,15,239,15
1410 DATA 159,5,190,5,239,5,142,40, >HB
179,40,179,40,0,10,0,10,0,10,119,10
,142,10,179,10,119,30,142,30,179,30
,142,10,179,10,239,10,142,10,179,10
,239,10,142,10,179,10,239,10,142,20
,179,20,239,20,179,20,239,20,284,20
,0,10,0,10,0,10,179,10,239,10,284,1
0,159,30
1420 DATA 190,30,239,30,142,10,179, >JY
10,239,10,119,7,142,7,239,7,134,7,1
59,7,239,7,159,7,190,7,239,7,179,40
,179,40,179,40,0,20,0,20,0,20,179,1
0,179,10,179,10,159,30,190,30,239,3
0,159,10,190,10,239,10,159,10,190,1
0,239,10,159,10,190,10,239,10,142,1
5,179,15
1430 DATA 179,10,134,5,159,5,179,10 >BP
,119,20,142,20,179,20,0,10,0,10,0,1
0,119,10,142,10,179,10,106,30,134,3
0,179,30,119,10,142,10,179,10,142,1
0,179,10,239,10,179,10,179,10,284,1
0,159,40,190,40,239,40,0,10,0,10,0,
10,159,10,190,10,239,10,159,30,190,
30,239
1440 DATA 30,159,10,190,10,239,10,1 >PE
59,10,190,10,239,10,159,10,190,10,2
39,10,142,15,179,15,179,10,134,5,15
9,5,179,10,119,20,142,20,179,20,0,1
0,0,10,0,10,119,10,159,10,179,10,89
,20,142,20,179,20,119,10,142,10,179
,10,142,10,179,10,179,10,134,10,159
,10,239,10
1450 DATA 159,10,190,10,253,10,119, >TY
40,142,40,284,40,0,10,0,10,0,10,119
,10,142,10,179,10,89,20,142,20,179,
20,119,10,142,10,179,10,142,10,179,
10,179,10,119,7,142,7,239,7,134,7,1
59,7,239,7,159,7,190,7,239,7,179,40
,179,40,179,40
1460 RESTORE 1470:FOR i=1 TO 21:REA >AB
D h1,h2:SOUND 1,h1,h2,8:SOUND 2,h1/
3,h2,8:SOUND 4,h1/5,h2,8:NEXT:RETUR
N
1470 DATA 239,80,213,20,190,20,179, >LP
20,159,20,142,40,127,40,119,60,0,20
,119,40,127,20,142,20,159,30,179,10
,190,20,213,20,239,10,213,10,190,10
,179,10,159,20
1480 RETURN                         >FG
```

PACKY



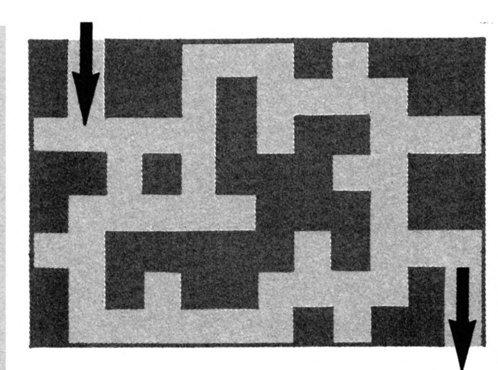
Laurent LE BAIL



PACKY est, selon son auteur, une modeste adaptation du célèbre "Pac-Man". Pourquoi publier ce jeu vu et revu ? Il nous a séduit par sa ressemblance avec l'original et surtout, il est 100% BASIC, ce qui ne gâche rien. De plus, il n'est pas évident de parvenir au but sans se faire attraper par un des quatre fantômes.

Vous pourrez retrouver l'ambiance de Pac-Man (la vitesse en moins tout de même) sur plus de quatre labyrinthes différents. Pour cela, il vous faut taper les 17 Ko de BASIC qui suivent. Quelques précisions : au départ, chaque tableau comporte huit pilules énergétiques. A partir du cinquième et jusqu'au huitième, vous devez parcourir les mêmes labyrinthes avec deux pilules seulement, au-delà il n'y a plus de pilules du tout !

Quelques astuces : pour visiter les différents tableaux un à un, faites BREAK (deux fois "ESC") puis NV=3 : GOTO 100 (par exemple) pour accéder au quatrième labyrinthe. En effet, les tableaux sont numérotés à partir de zéro ; la variable NV doit donc contenir le numéro désiré moins un (NV= X-1 : GOTO 100).

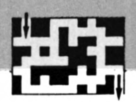


PACKY

```
10 '******************************** >LA
****
20 '         INTRO PACKY             >LB
25 '******************************** >LG
****
30 MODE 0:SPEED INK 10,10:INK 0,0:I >JU
NK 1,18:INK 2,24:INK 3,26:INK 4,6:I
NK 5,2:INK 6,8:INK 7,15:INK 8,25,20
:INK 9,1:PAPER 0:BORDER 0
40 PLOT 112,384,4                   >LJ
50 DRAW 112,256,4:DRAW 80,384,4:DRA >CG
W 176,336,4:DRAW 80,288,4
60 PLOT 176,256,2:DRAW 224,384,2:DR >AL
AW 272,256,2:DRAW 176,320,2:DRAW 27
2,320,2
70 PLOT 352,384,5:DRAW 288,320,5:DR >NL
AW 352,256,5
80 PLOT 384,384,3:DRAW 384,256,3:PL >AU
OT 448,384,3:DRAW 384,320,3:DRAW 44
8,256,3
90 PLOT 480,384,6:DRAW 512,320,6:PL >FQ
OT 560,384,6:DRAW 480,256,6
120 INK 10,6,23:INK 11,2,23:INK 12, >FJ
8,23:INK 13,15,23:INK 14,0,26
130 LOCATE 3,16:PEN 1:PRINT"LLB  PR >QQ
ODUCTIONS"
140 LOCATE 3,25:PEN 8:PAPER 9:PRINT >DV
"Le jeu se charge"
150 RUN"packy1"                     >MV
```

PACKY 1

```
10 '******************************** >LA
****
20 '            PACKY                >LB
30 '******************************** >LC
****
40 '                                 >LD
50 DIM T$(20,25):DIM T(20,25):REC=0 >EA
:REC$="00000":SCO$="00000"
60 GOSUB 3000                       >HA
70 GOSUB 30000                      >PD
80 GOSUB 20000                      >PD
90 SCO$="00000"                     >TG
100 GOSUB 10000                     >VG
110 GOSUB 3500                      >PB
120 GOSUB 5000                      >NK
130 GOSUB 2000                      >NH
140 GOSUB 4000                      >PA
150 GOSUB 6000                      >PD
160 GOSUB 7000                      >PF
170 SCO=SC+100000:SCO$=RIGHT$(STR$( >DH
SCO),5):LOCATE 1,1:PAPER 1:PEN 15:P
RINT"SC:";SCO$:PAPER 0
180 '*** TEST FIN DE TABLEAU ***    >RK
190 IF P=0 THEN SC=SC+500:INK 1,9,7 >XH
:FOR I=1 TO 5:FOR N=100 TO 20 STEP
-1:SOUND 1,N,1,12:SOUND 2,120-N,1,1
2:NEXT N:NEXT I:INK 1,9:GOTO 100
200 GOTO 130                        >YC
210 '*** GAME OVER ***              >RD
220 PAPER 4:PEN 8:LOCATE 6,13:PRINT >RQ
 "GAME  OVER"
230 IF REC<SCO THEN REC=SCO:REC$=RI >YD
GHT$(STR$(REC),5)
```



```
240 FOR PAUSE=1 TO 5000:NEXT:GOTO 6 >DZ
0
2000 '****************************** >XE
****
2010 '        DEPLACEMENT PACKY        >XF
2020 '****************************** >XG
****
2030 IF C=C1 AND L=L1 OR C=C2 AND L >NB
=L2 OR C=C3 AND L=L3 OR C=C4 AND L=
L4 THEN IF CH=-1 THEN 2200 ELSE FOR
 I=1 TO 40:SOUND 1,10+10*I,2,15:SOU
ND 2,5+20*I,2,15:NEXT I:VI=VI+1:IF
VI<4 THEN LOCATE 14+VI*2,25:PAPER 1
:PRINT " ";:PAPER 0:GOTO 2150 ELSE
220
2040 X=L:Y=C: D=JOY(0)               >QY
2050 C=C+(D=4)-(D=8)                 >NR

2060 L=L+(D=1)-(D=2)                 >NC
2070 IF C=21 AND L=14 THEN C=1       >VE
2080 IF C=0 AND L=14 THEN C=20       >VH
2090 IF T(C,L)>2 OR D>8 OR D=0 THEN >TX
 C=Y:L=X:RETURN

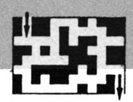
2100 LOCATE Y,X:PRINT " ":PEN 2:LOC >FU
ATE C,L:PRINT CHR$(245+D)
2110 IF T$(C,L)=CHR$(144) THEN T$(C >PQ
,L)=" ":FOR I=1 TO 5:SOUND 1,100-10
*I,1:SOUND 2,200-20*I,1:NEXT I:SC=S
C+1*BO:P=P-1
2120 IF T$(C,L)=CHR$(252) THEN T$(C >DP
,L)=" ":SC=SC+10:CH=-1:FOR I=4 TO 7
:INK I,23:NEXT I:P=P-1:AFTER 1000-N
V*100 GOSUB 9000:AFTER 1500-NV*100,
1 GOSUB 9070:FOR I=1 TO 10:SOUND 1,
50-5*I,1,13:SOUND 2,100-5*I,1,13:NE
XT I
2130 IF C=C1 AND L=L1 OR C=C2 AND L >NC
=L2 OR C=C3 AND L=L3 OR C=C4 AND L=
L4 THEN IF CH=-1 THEN 2200 ELSE FOR
 I=1 TO 40:SOUND 1,10+10*I,2,15:SOU
ND 2,5+20*I,2,15:NEXT I:VI=VI+1:IF
VI<4 THEN LOCATE 14+VI*2,25:PAPER 1
:PRINT " ";:PAPER 0:GOTO 2150 ELSE
220
2140 RETURN                          >FA
2150 '******EFFACT FANTOMES******** >YA
****
2160 FOR PAUSE=1 TO 2000:NEXT        >XW
2170 LOCATE C1,L1:PEN 3-5*(T(C1,L1) >UN
=2):PRINT T$(C1,L1):LOCATE C2,L2:PE
N 3-5*(T(C2,L2)=2):PRINT T$(C2,L2)
2180 LOCATE C3,L3:PEN 3-5*(T(C3,L3) >VG
=2):PRINT T$(C3,L3):LOCATE C4,L4:PE
N 3-5*(T(C4,L4)=2):PRINT T$(C4,L4)

2190 GOTO 110                        >EK
```

```
2200 '*******FANTOMES MORTS******** >XG
****
2210 IF C=C1 AND L=L1 AND M1=0 THEN >PU
 M1=1:GOTO 2260
2220 IF C=C2 AND L=L2 AND M2=0 THEN >PZ
 M2=1:GOTO 2260
2230 IF C=C3 AND L=L3 AND M3=0 THEN >PE
 M3=1:GOTO 2260
2240 IF C=C4 AND L=L4 AND M4=0 THEN >QB
 M4=1:GOTO 2260
2250 GOTO 2040                       >MC
2260 SC=SC+100                       >TB
2270 IF M1=1 AND M2=1 AND M3=1 AND  >BR
M4=1 THEN BO=5:INK 3,24,26
2280 FOR I=1 TO 20:SOUND 1,600-30*I >NH
,2,15:SOUND 2,700-30*I,2,15:NEXT
2290 GOTO 2040                       >MG
3000 '****************************** >XF
****
3010 '        INITIALISATION           >XG
3020 '****************************** >XH
****
3030 SYMBOL 245,60,126,219,255,189, >MT
195,255,219
3040 SYMBOL 244,60,66,165,129,189,1 >LC
95,129,219
3050 SYMBOL 246,44,110,239,235,255, >LC
255,126,60
3060 SYMBOL 247,60,126,255,255,235, >LE
239,110,44
3070 SYMBOL 249,60,126,239,255,15,2 >KR
55,126,60
3080 SYMBOL 253,60,126,247,255,240, >LD
255,126,60
3090 SYMBOL 250,60,126,239,255,15,2 >KK
55,126,60
3100 SYMBOL 251,60,126,239,255,15,2 >KC
55,126,60
3110 SYMBOL 252,0,0,24,60,60,24,0,0 >AT

3120 MODE 0                          >PA
3130 INK 0,0:INK 1,9:INK 2,24:INK 3 >EB
,26:INK 4,6:INK 5,2:INK 6,8:INK 7,1
5:INK 8,16,24:INK 9,21:INK 10,26:IN
K 15,7:BORDER 0:PAPER 0
3140 SC=0:A=0:B=0:VI=1:NV=0          >WK
3150 RETURN                          >FC
3500 '****INITIAL. PARTIELLE******* >YA
****
3510 PAPER 1:PEN 2:FOR I=20 TO 16+V >VZ
I*2 STEP -2:LOCATE I,25:PRINT CHR$(
249);:NEXT I:PAPER 0
3520 L=24:C=11:PEN 2:LOCATE 11,24:P >RV
RINT CHR$(249)
3530 C1=7:L1=10:DL1=0:DC1=-1         >WM
3540 C2=14:L2=10:DL2=0:DC2=1         >WU
3550 C3=8:L3=8:DL3=0:DC3=-1          >VH
```

```
3560 C4=13:L4=8:DL4=0:DC4=1          >VM
3570 CH=1                            >DG
3580 M1=0:M2=0:M3=0:M4=0:BO=1        >XC
3590 RANDOMIZE 0                     >LJ
3600 RETURN                          >FC
4000 '****************************** >XG
****
4010 '        DEPLACEMENT BLINKY       >XH
4020 '****************************** >XJ
****
4030 IF M1=1 THEN LOCATE C1,L1:PEN  >FK
10:PRINT CHR$(244):RETURN
4040 X=C1:Y=L1                       >XJ
4050 C1=C1+DC1                       >PB
4060 L1=L1+DL1                       >RK
4070 IF C1=21 AND L1=14 THEN C1=1    >YN
4080 IF C1=0 AND L1=14 THEN C1=20    >YR
4090 PEN 3-5*(T(X,Y)=2)              >QU
4100 LOCATE X,Y:PRINT T$(X,Y)        >YJ
4110 LOCATE C1,L1:PEN 4:PRINT CHR$( >GW
245)
4120 IF T(C1,L1)=0 OR T(C1,L1)=2 TH >KC
EN RETURN
4130 DC1=0:DL1=0                     >GE
4140 IF A=1 THEN 4200                >NK
4150 IF A=2 THEN 4250                >NT
4160 DL1=CH*SGN(L-L1):IF DL1=0 OR T >UC
(C1,L1+DL1)>2 THEN DL1=0:DC1=CH*SGN
(C-C1) ELSE RETURN
4170 IF DC1=0 THEN DC1=(INT(RND*2)- >HE
0.5)*2
4180 IF T(C1+DC1,L1)>2 THEN A=1:GOT >GA
O 4130
4190 RETURN                          >FH
4200 DL1=(INT(RND*2)-0.5)*2          >VD
4210 IF T(C1,L1+DL1)>2 THEN DL1=-DL >CQ
1
4220 IF T(C1,L1+DL1)>2 THEN A=0:DL1 >MW
=0:RETURN
4230 A=2                             >UJ
4240 RETURN                          >FD
4250 DC1=CH*SGN(C-C1)                >PE
4260 IF T(C1+DC1,L1)>2 THEN A=1:DC1 >MG
=0:RETURN
4270 A=0                             >VA
4280 RETURN                          >FH
5000 '****************************** >XH
***
5010 '        DEPART FANTOMES          >XJ
5020 '****************************** >XK
***
5030 LOCATE 9,13:PEN 4:PRINT CHR$(2 >RA
45):LOCATE 12,13:PEN 5:PRINT CHR$(2
45):LOCATE 10,13:PEN 6:PRINT CHR$(2
45):LOCATE 11,13:PEN 7:PRINT CHR$(2
45)
5040 RESTORE 5150                    >LV
```



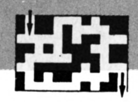
```
5050 FOR F=1 TO 4                        >BJ
5060 FOR I=1 TO 7                        >CF
5070 READ J,Z                            >JC
5080 LOCATE J,Z:PEN 3+F:PRINT CHR$(      >BU
245)
5090 FOR PAUSE=1 TO 100:NEXT             >WA
5100 LOCATE J,Z:PEN 3:PRINT T$(J,Z)      >DM

5110 SOUND 1,15,1                        >LU
5120 NEXT I                              >VD
5130 READ J,Z:LOCATE J,Z:PEN 3+F:PR      >RZ
INT CHR$(245)
5140 NEXT F                              >VC
5150 DATA 9,13,9,12,10,12,10,11,10,      >QB
10,9,10,8,10,7,10,12,13,12,12,11,12
,11,11,11,10,12,10,13,10,14,10,10,1
3,10,12,10,11,10,10,9,10,8,10,8,9,8
,8,11,13,11,12,11,11,11,10,12,10,13
,10,13,9,13,8
5160 RETURN                              >FF
6000 '****************************       >XJ
***
6010 '       DEPLACEMENT PUNKY           >XK
6020 '****************************       >YA
***
6030 IF M2=1 THEN LOCATE C2,L2:PEN       >FQ
10:PRINT CHR$(244):RETURN
6040 X=C2:Y=L2                           >YC
6050 C2=C2+DC2                           >PG
6060 L2=L2+DL2                           >TE
6070 IF C2=21 AND L2=14 THEN C2=1        >YU
6080 IF C2=0 AND L2=14 THEN C2=20        >YX
6090 PEN 3-5*(T(X,Y)=2)                  >QW
6100 LOCATE X,Y:PRINT T$(X,Y)            >YL
6110 LOCATE C2,L2:PEN 5:PRINT CHR$(      >GB
245)
6120 IF T(C2,L2)=0 OR T(C2,L2)=2 TH      >KJ
EN RETURN
6130 DC2=0:DL2=0                         >GJ
6140 IF B=1 THEN 6200                    >NQ
6150 IF B=2 THEN 6250                    >NY
6160 DC2=CH*SGN(C-C2):IF DC2=0 OR T      >TH
(C2+DC2,L2)>2 THEN DC2=0:DL2=CH*SGN
(L-L2)ELSE RETURN
6170 IF DL2=0 THEN DL2=(INT(RND*2)-      >HD
0.5)*2
6180 IF T(C2,L2+DL2)>2 THEN B=1:GOT      >GU
O 6130
6190 RETURN                              >FK
6200 DC2=(INT(RND*2)-0.5)*2              >VX
6210 IF T(C2+DC2,L2)>2 THEN DC2=-DC      >CU
2
6220 IF T(C2+DC2,L2)>2 THEN B=0:DC2      >MJ
=0:RETURN
6230 B=2                                 >VB
6240 RETURN                              >FF
6250 DL2=CH*SGN(L-L2)                    >QE
6260 IF T(C2,L2+DL2)>2 THEN B=1:DL2      >MJ
=0:RETURN
6270 B=0                                 >VD
6280 RETURN                              >FK
7000 '****************************       >XK
***
7010 '   DEPLACEMENT COCA ET COLA        >YA
7020 '****************************       >YB
***
7030 IF M3=1 THEN LOCATE C3,L3:PEN       >HJ
10:PRINT CHR$(244):GOTO 7170
7040 X=C3:Y=L3                           >YF
7050 C3=C3+DC3                           >QA
7060 L3=L3+DL3                           >TJ
7070 IF C3=21 AND L3=14 THEN C3=1        >YY
7080 IF C3=0 AND L3=14 THEN C3=20        >YB
7090 PEN 3-5*(T(X,Y)=2)                  >QX
7100 LOCATE X,Y:PRINT T$(X,Y)            >YM
7110 LOCATE C3,L3:PEN 6:PRINT CHR$(      >GF
245)
7120 IF T(C3,L3)=0 OR T(C3,L3)=2 TH      >MU
EN GOTO 7170
7130 DC3=0:DL3=0                         >HB
7140 DC3=CH*SGN(C-C3):IF DC3=0 OR T      >WF
(C3+DC3,L3)>2 THEN DC3=0:DL3=CH*SGN
(L-L3)ELSE GOTO 7170
7150 IF DL3=0 THEN DL3=(INT(RND*2)-      >HE
0.5)*2
7160 IF T(C3,L3+DL3)>2 THEN DC3=0:D      >FG
L3=0
7170 IF M4=1 THEN LOCATE C4,L4:PEN       >FD
10:PRINT CHR$(244):RETURN
8000 X=C4:Y=L4                           >YE
8010 C4=C4+DC4:L4=L4+DL4                 >TT
8020 IF C4=21 AND L4=14 THEN C4=1        >YX
8030 IF C4=0 AND L4=14 THEN C4=20        >YA
8040 PEN 3-5*(T(X,Y)=2)                  >QT
8050 LOCATE X,Y:PRINT T$(X,Y)            >YT
8060 LOCATE C4,L4:PEN 7:PRINT CHR$(      >GP
245)
8070 IF T(C4,L4)=0 OR T(C4,L4)=2 TH      >KZ
EN RETURN
8080 DC4=0:DL4=0                         >HJ
8090 DL4=CH*SGN(L-L4):IF DL4=0 OR T      >UN
(C4,L4+DL4)>2 THEN DL4=0:DC4=CH*SGN
(C-C4) ELSE RETURN
8100 IF DC4=0 THEN DC4=(INT(RND*2)-      >HH
0.5)*2
8110 IF T(C4+DC4,L4)>2 THEN DC4=0:D      >FY
L4=0
8120 RETURN                              >FE
9000 '****************************       >YB
***
9010 '    FANTOMES CLIGNOTANTS           >YC
9020 '****************************       >YD
***
9030 FOR I=4 TO 7                        >CK
9040 INK I,1,23                          >RJ
9050 NEXT I                              >VK
9060 RETURN                              >FJ
9070 INK 3,26:INK 4,6:INK 5,2:INK 6      >LZ
,8:INK 7,15
9080 CH=1:M1=0:M2=0:M3=0:M4=0:BO=1       >CT

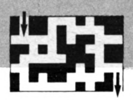
9090 RETURN                              >BB
10000 '***************************       >CG
****
10010 '            DECOR                 >CH
10020 '***************************       >CJ
****
10030 MODE 0:SPEED INK 10,10             >VA
10040 PEN 8:IF NV<2 THEN PRINT"          >KZ
DANS QUELQUES   ":PRINT"  INSTANTS
LA SUITE ":PRINT" DE  NOTRE PROGRAM
ME"
10050 IF NV=2 THEN PRINT"UN INSTANT      >ED
 ! PACKY A":PRINT"PERDU  UNE CHAUSS
URE"
10060 IF NV=3 THEN PRINT" PACKY  A       >HE
UNE ENVIE ":PRINT"     PRESSANTE.
   ":PRINT"    EXCUSEZ LE !    ":PE
N 5:LOCATE 8,15:PRINT"2 VIES":LOCAT
E 3,17:PRINT"SUPPLEMENTAIRES":VI=VI
-2
10070 IF NV>3 THEN PRINT"  PACKY RE      >TP
PREND SON ":PRINT"       SOUFFLE
   ":PRINT"     DUR ! DUR !     "

10080 PEN 0:PRINT FRE(" ")               >TG
10090 NV=NV+1:P=0:PIL=0:TABL=NV-INT      >PG
(NV/4)*4
10100 PEN 0:PRINT REMAIN(0):PRINT R      >MH
EMAIN(2)
10110 INK 0,0:INK 1,9:INK 2,24:INK       >QY
3,26:INK 4,6:INK 5,2:INK 6,8:INK 7,
15:INK 8,16,24:INK 10,26:INK 15,7:B
ORDER 0:PAPER 0
10120 IF TABL=1 THEN RESTORE 10270       >BD
10130 IF TABL=2 THEN RESTORE 10540       >BF

10140 IF TABL=3 THEN RESTORE 10800       >BG
10150 IF TABL=0 THEN RESTORE 11060       >BD
10160 FOR L=1 TO 25                      >LF
10170 FOR C=1 TO 20                      >LR
10180 READ X                             >ZD
10190 SOUND 1,X*5+50,1,12                >TH
10200 IF X=0 OR X=1 THEN P=P+1:PEN       >QY
3:T$(C,L)=CHR$(144) ELSE IF X=3 THE
N T$(C,L)=" " ELSE IF X=2 THEN PIL=
PIL+1:P=P+1:PEN 8:T$(C,L)=CHR$(252)
 ELSE PEN 1:T$(C,L)=CHR$(143)
10210 IF X=2 AND NV>4 AND PIL>2  OR      >CE
 X=2 AND NV>8 THEN PEN 3:T$(C,L)=CH
R$(144):X=0
```



```
10220 T(C,L)=X                          >RF
10230 LOCATE C,L:PRINT T$(C,L);         >ZG
10240 NEXT:NEXT                         >LM
10250 T$(11,24)=" ":P=P-1               >RA
10260 LOCATE 1,1:PEN 15:PAPER 1:PRI >ZV
NT"SC:";SCO$:LOCATE 12,1:PRINT"REC:
";REC$:PEN 15:LOCATE 1.25:PRINT "TA
B";NV;:PAPER 0
10270 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PX
4,4,4,4,4,4,4,4
10280 DATA 4,1,0,0,0,0,1,0,0,1,1,0, >PB
0,1,0,0,0,0,1,4
10290 DATA 4,2,4,4,4,4,0,4,4,0,0,4, >PC
4,0,4,4,4,4,2,4
10300 DATA 4,1,0,1,4,1,1,0,1,1,1,1, >PJ
0,1,1.4,1,0,1,4
10310 DATA 4,4,4,0,4,0,4,4,0,4,4,0, >PQ
4,4,0,4,0,4,4,4
10320 DATA 4,1,0,1,4,1,0,0,1,1,1,1, >PJ
0,0,1,4,1,0,1,4
10330 DATA 4,0,4,4,4,0,4,4,4,0,0,4, >PT
4,4,0,4,4,4,0,4
10340 DATA 4,1,0,1,0,1,0,1,0,1,1,0, >PC
1,0,1,0,1,0,1,4
10350 DATA 4,0,4,0,4,4,4,0,4,4,4,4, >PV
0,4,4,4,0,4,0,4
10360 DATA 4,1,0,1,0,2,1,1,0,0,0,0, >PG
1,1,2,0,1,0,1,4
10370 DATA 4,0,4,4,4,4,0,4,4,3,3,4, >PD
4,0,4,4,4,4,0,4
10380 DATA 4,1,1,0,0,0,1,4,3,3,3,3, >PZ
4,1,0,0,0,1,1,4
10390 DATA 4,4,0,4,4,4,0,4,3,3,3,3, >PD
4,0,4,4,4,0,4,4
10400 DATA 0,0,1,1,0,0,1,4,3,3,3,3, >PH
4,1,0,0,1,1,0,0
10410 DATA 4,4,4,0,4,4,0,4,4,4,4,4, >PA
4,0,4,4,0,4,4,4
10420 DATA 4,1,0,1,0,2,1,1,0,0,0,0, >PD
1,1,2,0,1,0,1,4
10430 DATA 4,0,4,0,4,4,4,0,4,4,4,4, >PU
0,4,4,4,0,4,0,4
10440 DATA 4,1,0,1,0,1,0,1,0,1,1,0, >PD
1,0,1,0,1,0,1,4
10450 DATA 4,0,4,4,4,0,4,4,4,0,0,4, >PW
4,4,0,4,4,4,0,4
10460 DATA 4,1,0,1,4,1,0,0,1,1,1,1, >PP
0,0,1,4,1,0,1,4
10470 DATA 4,4,4,0,4,0,4,4,0,4,4,0, >PY
4,4,0,4,0,4,4,4
10480 DATA 4,1,0,1,4,1,1,0,1,1,1,1, >PU
0,1,1,4,1,0,1,4
10490 DATA 4,2,4,4,4,4,0,4,4,0,0,4, >PE
4,0,4,4,4,4,2,4
10500 DATA 4,1,0,0,0,0,1,0,0,1,1,0, >NE
0,1,0,0,0,0,1,4
10510 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PU
4,4,4,4,4,4,4,4
10520 RETURN                            >MA
10530 ' LABYRINTHE 2                    >DE
10540 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PX
4,4,4,4,4,4,4,4
10550 DATA 4,1,0,0,0,1,0,0,0,1,1,0, >PB
0,0,1,0,0,0,1,4
10560 DATA 4,2,4,4,4,0,4,4,4,0,0,4, >PC
4,4,0,4,4,4,2,4
10570 DATA 4,0,4,1,0,1,4,1,0,1,1,0, >PY
1,4,1,0,1,4,0,4
10580 DATA 4,0,4,0,4,4,4,0,4,4,4,4, >PA
0,4,4,4,0,4,0,4
10590 DATA 4,1,0,1,0,0,0,1.0,1,1,0, >PH
1,0,0,0,1,0,1,4
10600 DATA 4,0,4,4,4,4,4,4,4,0,0,4, >PB
4,4,4,4,4,4,0,4
10610 DATA 4,1,0,0,1,0,0,1,0,1,1,0, >PA
1,0,0,1,0,0,1,4
10620 DATA 4,4,4,4,0,4,4,0,4,4,4,4, >PD
0,4,4,0,4,4,4,4
10630 DATA 4,1,1,0,1,0,1,1,0,0,0,0, >PE
1,1,0,1,0,1,1,4
10640 DATA 4.4,0,4,0,4,0,4,4,3,3,4, >PV
4,0,4,0,4,0,4,4
10650 DATA 4,1,1,4,2,4,0,4,3,3,3,3, >PU
4,0,4,2,4,1,1,4
10660 DATA 4,0,4,4,1,0,1,4,3,3,3,3, >PQ
4,1,0,1,4,4,0,4
10670 DATA 0,1,1,4,4,4,0,4,3,3,3,3, >PR
4,0,4,4,4,1,1,0
10680 DATA 4,4,0,4,1,4,0,4,4,4,4,4, >PD
4,0,4,1,4,0,4,4
10690 DATA 4,1,1,0,1,0,1,0,1,0,0,1, >PL
0,1,0,1,0,1,1,4
10700 DATA 4,0,4,4,0,4,0,4,0,4,4,0, >PK
4,0,4,0,4,4,0,4
10710 DATA 4,1,1,4,0,4,0,4,1,0,0,1, >PA
4,0,4,0,4,1,1,4
10720 DATA 4,4,0,4,0,4,1,0,1,0,0,1, >PZ
0,1,4,0,4,0,4,4
10730 DATA 4,1,1,4,0,4,4,4,0,4,4,0, >PT
4,4,4,0,4,1,1,4
10740 DATA 4,2,4,4,1,0,1,1,1,1,1,1, >PD
1,1,0,1,4,4,2,4
10750 DATA 4,1,1,4,0,4,1,1,4,1,1,4, >PJ
1,1,4,0,4,1,1,4
10760 DATA 4,4,0,4,0,4,4,0,4,4,4,4, >PA
0,4,4,0,4,0,4,4
10770 DATA 4,1,1,0,1,0,0,1,0,0,0,0, >PH
1,0,0,1,0,1,1,4
10780 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PD
4,4,4,4,4,4,4,4
10790 ' LABIRYNTHE 3                    >EC
10800 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PW
4,4,4,4,4,4,4,4
10810 DATA 4,1,0,1,0,0,0,1,0,1,1,0, >PC
1,0,0,0,1,0,1.4
10820 DATA 4,0,4,0,4,4,4,0,4,1,1,4, >PQ
0,4,4,4,0,4,0,4
10830 DATA 4,0.4,1,0,1,4,0,4,4,0,4, >PF
0,4,1,0,1,4,0,4
10840 DATA 4,0,4,4,4,0,4,0,4,1,1,4, >PT
0,4,0,4,4,4,0,4
10850 DATA 4,0,4,1.2,1,4,0,4,0,4,4, >PM
0,4,1,2,1,4,0,4
10860 DATA 4,0.4,4,4,0,4,0,4,1,1,4, >PV
0,4,0,4,4,4,0,4
10870 DATA 4,1,0,0,0,1,0,1.0,1,1,0, >PJ
1,0,1,0,0,0,1,4
10880 DATA 4,4,4,4,4,4,4,0,4,4,4,4, >PW
0,4,4,4,4,4,4,4
10890 DATA 4,1,0,0,0,0,1,1,0,0,0,0, >PJ
1,1,0,0,0,0,1,4
10900 DATA 4,0,4,4,4,4,0,4,4,3,3,4, >PC
4,0,4,4,4,4,0,4
10910 DATA 4,1,0,0,0,0,1,4,3,3,3,3, >PW
4,1,0,0,0,0,1,4
10920 DATA 4,0,4,4,4,4,0,4,3,3,3,3, >PC
4,0,4,4,4,4,0,4
10930 DATA 0,1,0,1,0,0,1,4,3,3,3,3, >PR
4,1,0,0,1,0,1,0
10940 DATA 4,0,4,0,4,4,0,4,4,4,4,4, >PA
4,0,4,4,0,4,0,4
10950 DATA 4,0,4,1,1,4,1,0,0,1,1,0, >PA
0,1,4,1,1,4,0,4
10960 DATA 4,0,4,0,4,4,0,4,4,0,0,4, >PU
4,0,4,4,0,4,0,4
10970 DATA 4,0,4,1,1,4,1,0,0,1,1,0, >PC
0,1,4,1,1,4,0,4
10980 DATA 4,0,4,1,1,0,1,4,4,4,4,4, >PU
4,1,0,1,1,4,0,4
10990 DATA 4,0,4,4,4,4,0,4,1,0,0,1, >PZ
4,0,4,4,4,4,0,4
11000 DATA 4,1,1,0,1,4,1,1,1,4,4,1. >PQ
1,1,4,1,0,1,1,4
11010 DATA 4,4,2,4,0,4,4,0,4,1,1,4, >PL
0,4,4,0,4,2,4,4
11020 DATA 4,1,1,4,0,4,1,1,0,1,1,0, >PQ
1,1,4,0,4,1,1,4
11030 DATA 4,1,4,4,1,0,1,4,4,1,1,4, >PG
4,1,0,1,4,4,1,4
11040 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PT
4,4,4,4,4,4,4,4
11050 '  LABYRINTHE 4                   >DC
11060 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PV
4,4,4,4,4,4,4,4
11070 DATA 4,1,0,0,1,0,0,1,4,4,4,4, >PR
1,0,0,1,0,0,1,4
11080 DATA 4,2,4,4,0,4,4,0,4,1,1,4, >PU
0,4,4,0,4,4,2,4
11090 DATA 4,1,0,0,1,0,0,1,0,1,1,0, >PD
1,0,0,1,0,0,1,4
11100 DATA 4,4,4,4,4,4,4,4,4,0,0,4, >PF
```



```
4,4,4,4,4,4,4,4
11110 DATA 4,1,0,1,0,1,0,0,0,1,1,0, >NE
0,0,1,0,1,0,1,4
11120 DATA 4,0,4,0,4,0,4,4,4,4,4,4, >PQ
4,4,0,4,0,4,0,4
11130 DATA 4,0,4,0,4,1,0,1,0,0,0,0, >PL
1,0,1,4,0,4,0,4
11140 DATA 4,0,4,0,4,0,4,0,4,4,4,4, >PJ
0,4,0,4,0,4,0,4
11150 DATA 4,0,4,0,4,1,1,1,0,0,0,0, >PQ
1,1,1,4,0,4,0,4
11160 DATA 4,0,4,0,4,4,0,4,4,3,3,4, >PT
4,0,4,4,0,4,0,4
11170 DATA 4,0,4,1,0,0,1,4,3,3,3,3, >PD
4,1,0,0,1,4,0,4
11180 DATA 4,0,4,4,4,4,0,4,3,3,3,3, >PB
4,0,4,4,4,4,0,4
11190 DATA 0,1,0,1,1,0,1,4,3,3,3,3, >PT
4,1,0,1,1,0,1,0
11200 DATA 4,0,4,1,1,4,0,4,4,4,4,4, >PK
4,0,4,1,1,4,0,4
11210 DATA 4,0,4,4,0,4,1,0,1,0,0,1, >PU
0,1,4,0,4,4,0,4
11220 DATA 4,1,0,0,1,4,1,0,1,4,4,1, >PQ
0,1,4,1,0,0,1,4
11230 DATA 4,0,4,4,4,4,0,4,4,1,1,4, >PV
4,0,4,4,4,4,0,4
11240 DATA 4,0,4,1,0,0,1,0,0,1,1,0, >PG
0,1,0,0,1,4,0,4
11250 DATA 4,0,4,0,4,4,4,4,4,0,0,4, >PV
4,4,4,4,0,4,0,4
11260 DATA 4,0,4,1,0,1,0,1,0,1,1,0, >PL
1,0,1,0,1,4,0,4
11270 DATA 4,0,4,1,4,1,0,1,4,4,4,4, >PL
1,0,1,4,1,4,0,4
11280 DATA 4,2,4,0,4,0,4,4,4,1,1,4, >PW
4,4,0,4,0,4,2,4
11290 DATA 4,1,4,1,0,1,0,0,0,1,1,0, >PP
0,0,1,0,1,4,1,4
11300 DATA 4,4,4,4,4,4,4,4,4,4,4,4, >PR
4,4,4,4,4,4,4,4
20000 '**************************** >CH
***
20010          PRESENTATION          >CJ
20020 '**************************** >CK
***
20030 MODE 0:PAPER 0                 >NW
20040 SPEED INK 150,150              >QE
20050 PLOT 112,384,4                 >NG

20060 DRAW 112,256,4:DRAW 80,384,4: >GT
DRAW 176,336,4:DRAW 80,288,4
20070 PLOT 176,256,2:DRAW 224,384,2 >DH
:DRAW 272,256,2:DRAW 176,320,2:DRAW
 272,320,2
20080 PLOT 352,384,5:DRAW 288,320,5 >RR
:DRAW 352,256,5
20090 PLOT 384,384,3:DRAW 384,256,3 >EG
:PLOT 448,384,3:DRAW 384,320,3:DRAW
 448,256,3
20100 PLOT 480,384,6:DRAW 512,320,6 >JG
:PLOT 560,384,6:DRAW 480,256,6
20110 INK 10,6,23:INK 11,2,23:INK 1 >HB
2,8,23:INK 13,15,23:INK 14,0,26


20120 PEN 10:LOCATE 1,12:PRINT CHR$ >ND
(245);:PEN 3:PRINT " ..";:PEN 2:PRI
NT "BLINKY";:PEN 14:PRINT ": ";
20130 PEN 11:LOCATE 1,14:PRINT CHR$ >MX
(245);:PEN 3:PRINT " ..";:PEN 2:PRI
NT "PUNKY ";:PEN 14:PRINT ": ";
20140 PEN 14:LOCATE 13,15:PRINT "10 >HP
0 PTS"
20150 PEN 12:LOCATE 1,16:PRINT CHR$ >LF
(245);:PEN 3:PRINT " ..";:PEN 2:PRI
NT "COCA  ";:PEN 14:PRINT ": ";
20160 PEN 13:LOCATE 1,18:PRINT CHR$ >ML
(245);:PEN 3:PRINT " ..";:PEN 2:PRI
NT "COLA  ";:PEN 14:PRINT ": ";
20170 PEN 8:LOCATE 1,20:PRINT CHR$( >XK
252);:PEN 3:PRINT " ........:  10 P
TS";
20180 PEN 3:LOCATE 1,22:PRINT CHR$( >EK
144);" ........:   1 PT ";
20190 FOR I=1 TO 2                  >LD
20200 PEN 2:LOCATE 1,24:PRINT "     >VU
 POUR JOUER      "
20210 PEN 9:LOCATE 1,25:PRINT"  APP >YE
UYEZ SUR FEU   ";
20220 FOR PAUSE=1 TO 1000:D=JOY(0): >GG
IF D=16 THEN 20280 ELSE NEXT
20230 PEN 9:LOCATE 1,24:PRINT"score >ZF
        record"
20240 PEN 2:LOCATE 1,25:PRINT sco$; >WK
SPACE$(10);rec$;
20250 FOR PAUSE=1 TO 1000:D=JOY(0): >GK
IF D=16 THEN 20280 ELSE NEXT
20260 NEXT I                        >BD
20270 GOTO 25000                    >BA
20280 SOUND 1,FLUSH                 >NE
20290 RETURN                        >MF
25000 '**************************** >DC
****
25010 '        PRESENTATION 2       >DD
25020 '**************************** >DE
****
25030 MODE 1:INK 1,6                >MH
25040 PEN 2:LOCATE 18,1:PRINT"PACKY >EJ
"
25050 LOCATE 6,4:PEN 1:PRINT"REALIS >JG
ATION : LE BAIL LAURENT"
25060 LOCATE 1,6:PEN 1:PRINT"CONCEP >WR
TION DES LABYRINTHES ET AIDE A LA
         SAISIE : LE BAIL KATIA"

25070 LOCATE 1,10:PEN 3:PRINT"BUT D >BB
U JEU : MANGER TOUTES LES PIECES
           AFIN D'ACCEDER AU TABL
EAU            SUIVANT."
25080 LOCATE 1,14:PRINT"MANGER UNE  >FU
PASTILLE REND LES FANTOMES   COMEST
IBLES PENDANT UNE DUREE LIMITEE."
25090 LOCATE 1,17:PRINT"4 FANTOMES  >LR
MORTS DONNENT 5 POINTS PAR   PIECE
MANGEE."
25100 LOCATE 1,20:PRINT"AU TABLEAU  >RM
4, 2 VIES VOUS SONT AJOUTEES."
25110 LOCATE 8,22:PEN 1:PRINT"UTILI >FF
SEZ LA MANETTE DE JEU"
25120 LOCATE 4,25:PEN 2:PRINT"POUR  >RB
JOUER, PRESSEZ LE BOUTON FEU"
25130 FOR PAUSE=1 TO 4000:D=JOY(0): >JK
IF D<>16 THEN NEXT:GOTO 20000
25140 SOUND 1,FLUSH                 >NE
25150 RETURN                        >MF
30000 '**************************** >CJ
****
30010           MUSIQUE             >CK
30020 '**************************** >DA
****
30030 RESTORE 30110                 >NK
30040 ENV 1,15,-1,10:ENT 1,10,4,1,1 >FR
,-20,1
30050 READ BB,CC                    >EB
30060 IF BB=0 THEN RESTORE 30110:GO >JN
TO 30050
30070 PER=ROUND(125000/(440*(2^((BB >NR
-10)/12))))
30080 SOUND 1,PER/2,CC*2,13,1,1     >YX
30090 SOUND 2,PER/4,CC*2,13,1,1     >YB
30100 ON SQ(1) GOSUB 30050:RETURN   >AG
30110 DATA 1,5,3,5,5,10,8,10,8,10   >YG
30120 DATA 10,10,8,10,5,10,1,10,1,5 >ZP

30130 DATA 3,5,5,10,5,10,3,10,1,10  >ZB
30140 DATA 3,20,3,10,1,5,3,5,5,10,8 >ZA

30150 DATA 10,8,10,10,10,8,10,5,10  >ZJ
30160 DATA 1,10,1,5,3,5,5,10,5,10,3 >ZW

30170 DATA 10,3,10,1,20,1,10,6,20,6 >ZU

30180 DATA 20,10,10,10,20,10,10,8   >YA
30190 DATA 10,8,10,5,10,1,10,3,20,3 >ZY

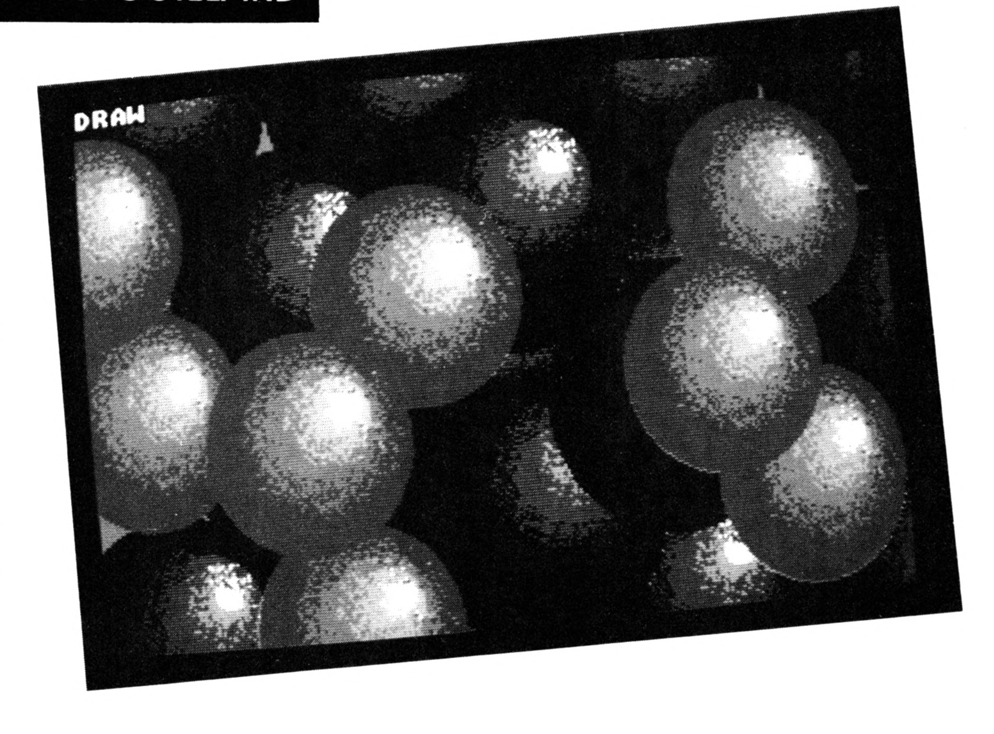
30200 DATA 10,1,10,5,10,8,10,8,10   >YZ
30210 DATA 10,10,8,10,5,10,1,10,1,5 >ZP

30220 DATA 3,5,5,10,5,10,3,10,3,10  >ZD
30230 DATA 1,40,0,0                 >LM
```

VOLUMES



Emmanuel GUILLARD

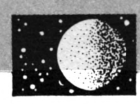


Chose promise, chose due. Après avoir totalement exploré les surfaces, il reste encore à tâter les volumes. (Attention pas ceux de l'Encyclopaedia Universalis ni ceux de Kartine : c'est défendu !).
La troisième dimension vous apportera certainement de grandes joies. Le mode d'emploi du programme est similaire à celui de son prédécesseur et de toute façon très accessible.

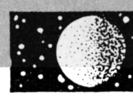
```
10 ON ERROR GOTO 5620                  >PP
20 '                                   >LB
30 ' SURFACES                          >LC
40 '                                   >LD
50 ' MENU PRINCIPAL                    >LE
60 '                                   >LF
70 MODE 2:SU$=CHR$(24):SURF=1:GOSUB >JZ
 5580
80 LOCATE 26,6:PRINT SU$;"CUBE";SU$ >AX
;SPC(11);SU1$;"PARALLELEPIPEDE";SU1
$
90 LOCATE 26,8:PRINT SU2$;"CYLINDRE >GY
";SU2$;SPC(7);SU3$;"CYLINDRE CREUX"

:SU3$
100 LOCATE 26,10:PRINT SU4$;"PYRAMI >NX
DE";SU4$;SPC(7);SU5$;"TRONC DE PYRA
MIDE";SU5$
110 LOCATE 26,12:PRINT SU6$;"CONE"; >BR
SU6$;SPC(11):SU7$;"TRONC DE CONE";S
U7$
120 LOCATE 26,14:PRINT SU8$;"SPHERE >LT
";SU8$;SPC(9);SU9$;"CALOTTE SPHERIQ
UE";SU9$
130 LOCATE 26,16:PRINT SU10$;"TONNE >NT
AU";SU10$;SPC(8);SU11$;"ZONE SPHERI
QUE";SU11$
140 '                                  >RF
150 ' CHOIX                            >RG
160 '                                  >RH
170 IF INKEY(8)=0 THEN SURF=SURF-1: >LG
GOTO 240
180 IF INKEY(0)=0 THEN SURF=SURF-2: >LA
GOTO 240
190 IF INKEY(1)=0 THEN SURF=SURF+1: >LA
GOTO 250

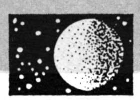
200 IF INKEY(2)=0 THEN SURF=SURF+2: >LU
GOTO 250
210 IF INKEY(9)=0 THEN RUN"SURVOL"  >CC
 ' K7
220 IF INKEY(18)=0 THEN ON SURF GOS >PX
UB 400,770,1180,1540,1930,2400,2670
,3110,3590,3860,4230,4590:GOTO 80
230 GOTO 170                           >YK
240 IF SURF<1 THEN SURF=12             >VN
250 IF SURF>12 THEN SURF=1             >VP
260 ON SURF GOSUB 270,280,290,300,3 >UP
10,320,330,340,350,360,370,380:GOTO
 80
270 SU$=CHR$(24):SU1$="":SU2$="":SU >DD
11$="":SU10$="":RETURN
280 SU1$=CHR$(24):SU$="":SU2$="":SU >CB
3$="":SU11$="":RETURN
290 SU2$=CHR$(24):SU$="":SU1$="":SU >BA
3$="":SU4$="":RETURN
300 SU3$=CHR$(24):SU1$="":SU2$="":S >CB
U4$="":SU5$="":RETURN
310 SU4$=CHR$(24):SU2$="":SU3$="":S >CH
U5$="":SU6$="":RETURN
320 SU5$=CHR$(24):SU3$="":SU4$="":S >CP
U6$="":SU7$="":RETURN
330 SU6$=CHR$(24):SU4$="":SU5$="":S >CW
U7$="":SU8$="":RETURN
340 SU7$=CHR$(24):SU5$="":SU6$="":S >CC
U8$="":SU9$="":RETURN
350 SU8$=CHR$(24):SU6$="":SU7$="":S >DE
U9$="":SU10$="":RETURN
360 SU9$=CHR$(24):SU7$="":SU8$="":S >EH
U10$="":SU11$="":RETURN
370 SU10$=CHR$(24):SU$="":SU8$="":S >DV
U9$="":SU11$="":RETURN
```



```
380 SU11$=CHR$(24):SU10$="":SU9$=""  >DN
:SU$="":SU1$="":RETURN
390 ' cube                           >TC
400 MODE 2:GOSUB 5400:GOSUB 5590     >ZM
410 PLOT 320,200,13:DRAWR -100,0:DR  >PM
AWR 0,100:DRAWR 100,0:DRAWR 0,-100
420 PLOT 220,200:DRAWR -17,0:DRAWR   >UR
0,100:DRAWR 17,0
430 PLOT 203,200:DRAWR -5,10:PLOTR   >MR
11,0:DRAWR -5,-10:PLOT 203,300:DRAW
R -5,-10:PLOTR 11,0:DRAWR -5,10
440 PLOT 220,200:DRAWR 0,-17:DRAWR   >UU
100,0:DRAWR 0,17
450 PLOT 220,183:DRAWR 10,5:PLOTR 0  >JE
,-11:DRAWR -10,5:PLOT 320,183:DRAWR
 -10,5:PLOTR 0,-11:DRAWR 10,5
460 PLOT 320,200:DRAWR -70,120       >XZ
470 PLOT 350,220:DRAWR -100,0:DRAWR  >LK
 0,100:DRAWR 100,0:DRAWR 0,-100
480 PLOT 320,200:DRAW 350,220:PLOT   >WT
220,200:DRAW 250,220:PLOT 220,300:D
RAW 250,320:PLOT 320,300:DRAW 350,3
20
490 LOCATE 26,10:PRINT "a":LOCATE 3  >VZ
4,14:PRINT "a":LOCATE 35,9:PRINT "e
"
500 fo1$=CHR$(24):fo2$="":fo3$=""    >ZU
510 fo=1                             >YB
520 LOCATE #3,59,6:PRINT #3,fo1$;"V  >XK
=a";CHR$(254);fo1$
530 LOCATE #3,59,12:PRINT #3,fo2$;"  >BN
Ao=6a";CHR$(255);fo2$
540 LOCATE #3,59,18:PRINT #3,fo3$;"  >PU
e=a  3";fo3$
550 ' radicaux                       >TA
560 PLOT 488,128:DRAWR 8,-14:DRAWR   >TU
8,14:DRAWR 16,0
570 IF INKEY(18)=0 THEN 660          >UR
580 IF INKEY(47)=0 THEN 610          >UP
590 IF INKEY(9)=0 THEN CLS:RETURN    >CJ
600 GOTO 570                         >ZE
610 fo=fo+1:IF fo>3 THEN fo=1        >WG
620 ON fo GOSUB 630,640,650:GOTO 52  >CL
0
630 fo1$=CHR$(24):fo2$="":fo3$="":R  >HV
ETURN
640 fo2$=CHR$(24):fo1$="":fo3$="":R  >HW
ETURN
650 fo3$=CHR$(24):fo1$="":fo2$="":R  >HX
ETURN
660 CALL &BB03:CLS#1:ON fo GOSUB 67  >GN
0,700,730:CLS#1:GOSUB 5500:GOSUB 55
90:GOTO 500
670 tab1=2:tab2=2:GOSUB 5010         >WR
680 volu=ROUND(co1^3,4):LOCATE #1,2  >FY
,8:PRINT#1,"Le volume est de :":PRI
NT #1," ";volu;" cm";CHR$(254);" ."
690 CALL &BB06:RETURN                >QC
700 tab1=2:tab2=2:GOSUB 5010         >WK
710 AIRE=ROUND(6*CO1^2,4):LOCATE #1  >BX
,2,8:PRINT#1,"La surface totale":PR
INT #1," est de : ";aire;" cm";CHR$
(255);" ."
720 CALL &BB06:RETURN                >QW
730 tab1=2:tab2=2:GOSUB 5010         >WN
740 dia=ROUND(co1*SQR(3),4):LOCATE   >QH
#1,2,8:PRINT#1,"La diagonale est de
":PRINT #1," ";dia;" cm ."
750 CALL &BB06:RETURN                >QZ
760 ' parallelepipede                >TD
770 MODE 2:GOSUB 5400:GOSUB 5590     >ZY
780 PLOT 320,200,13:DRAWR -100,0:DR  >HK
AWR 0,50:DRAWR 100,0:DRAWR 0,-50:DR
AWR 50,30:DRAWR 0,50:DRAWR -100,0:D
RAWR 0,-50:DRAWR 100,0
790 PLOT 220,200:DRAWR 50,30:PLOT 3  >CB
20,250:DRAWR 50,30:PLOT 220,250:DRA
WR 50,30
800 PLOT 320,200:DRAWR 0,-10:DRAWR   >NM
-8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -10
0,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8,4
:DRAWR 0,10
810 PLOT 320,200:DRAWR 20,0:DRAWR 5  >UT
0,30:DRAWR -20,0
820 PLOT 320,200:DRAWR -50,80        >WB
830 PLOT 220,200:DRAWR -20,0:DRAWR   >NT
-4,8:MOVER 8,0:DRAWR -4,-8:DRAWR 0,
50:DRAWR -4,-8:MOVER 8,0:DRAWR -4,8
:DRAWR 20,0
840 LOCATE 25,11:PRINT"h":LOCATE 34  >DP
,14:PRINT"a":LOCATE 46,12:PRINT"b":
LOCATE 38,11:PRINT "e"
850 fo1$=CHR$(24):fo2$="":fo3$=""    >ZC
860 fo=1                             >YK
870 LOCATE #3,59,6:PRINT #3,fo1$;"V  >RC
=a.b.h";fo1$
880 LOCATE #3,59,12:PRINT #3,fo2$;"  >BG
Ao=2(ab+bh+ah)";fo2$
890 LOCATE #3,59,18:PRINT #3,fo3$;"  >QT
e= a";CHR$(255);"+b";CHR$(255);"+h"
;CHR$(255);fo3$
900 ' radicaux                       >RK
910 PLOT 478,128:DRAWR 6,-14:DRAWR   >TQ
6,14:DRAWR 64,0
920 IF INKEY(18)=0 THEN 1010         >VD
930 IF INKEY(47)=0 THEN 960          >UX
940 IF INKEY(9)=0 THEN CLS:RETURN    >CH
950 GOTO 920                         >AB
960 fo=fo+1:IF fo>3 THEN fo=1        >XG
970 ON fo GOSUB 980,990,1000:GOTO 8  >DT
70
980 fo1$=CHR$(24):fo2$="":fo3$="":R  >HD
ETURN
990 fo2$=CHR$(24):fo1$="":fo3$="":R  >HE
ETURN
1000 fo3$=CHR$(24):fo1$="":fo2$="":  >JY
RETURN
1010 CALL &BB03:CLS#1:ON fo GOSUB 1  >ME
020,1070,1120:CLS#1:GOSUB 5500:GOSU
B 5590:GOTO 850
1020 TAB1=2:TAB2=2:GOSUB 5010        >XD
1030 TAB1=2:TAB2=6:GOSUB 5040        >XM
1040 TAB1=2:TAB2=10:GOSUB 5170       >YM
1050 VOL=ROUND(CO1*CO2*HAUT,4):LOCA  >TB
TE #1,2,14:PRINT#1,"Le volume est d
e :":PRINT #1," ";vol;" cm";CHR$(25
4);" ."
1060 CALL &BB06:RETURN               >RJ
1070 TAB1=2:TAB2=2:GOSUB 5010        >XJ
1080 TAB1=2:TAB2=6:GOSUB 5040        >XT
1090 TAB1=2:TAB2=10:GOSUB 5170       >YT
1100 AIR1=ROUND(2*((CO1*CO2)+(CO2*H  >VY
AUT)+(CO1*HAUT)),4):LOCATE #1,2,14:
PRINT#1,"L'aire totale est":PRINT #
1," de";air1;" cm";CHR$(255);" ."
1110 CALL &BB06:RETURN               >RE
1120 TAB1=2:TAB2=2:GOSUB 5010        >XE
1130 TAB1=2:TAB2=6:GOSUB 5040        >XN
1140 TAB1=2:TAB2=10:GOSUB 5170       >YN
1150 dia=ROUND(SQR(co1^2+co2^2+haut  >UZ
^2),4):LOCATE #1,2,14:PRINT#1,"La d
iagonale est de":PRINT #1," ";dia;"
 cm ."
1160 CALL &BB06:RETURN               >RK
1170 ' cylindre                      >YB
1180 MODE 2:GOSUB 5400:GOSUB 5590    >AU
1190 DEG                             >YC
1200 PLOT 360,180:FOR f%=1 TO 360 S  >FE
TEP 10:DRAW 320+40*COS(f%),180+20*S
IN(f%):NEXT
1210 PLOT 360,360:FOR f%=1 TO 360 S  >FF
TEP 10:DRAW 320+40*COS(f%),360+20*S
IN(f%):NEXT
1220 PLOT 360,180:DRAWR 0,180:PLOT   >XH
280,180:DRAWR 0,180
1230 PLOT 360,180:DRAWR 0,-60:DRAWR  >NH
 -8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -8
0,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8,4
:DRAWR 0,60
1240 PLOT 280,180:DRAWR -30,0:DRAWR  >RB
 -4,8:MOVER 8,0:DRAWR -4,-8:DRAWR 0
,180:DRAWR -4,-8:MOVER 8,0:DRAWR -4
,8:DRAWR 30,0
1250 LOCATE 32,8:PRINT "h":LOCATE 4  >TY
1,18:PRINT "d"
1260 fo1$=CHR$(24):fo2$="":fo3$=""   >AC
1270 fo=1                            >EB
1280 LOCATE #3,59,6:PRINT #3,fo1$;"  >FC
V=((";CHR$(184);".d";CHR$(255);")/4
).h";fo1$
1290 LOCATE #3,59,12:PRINT #3,fo2$;  >HX
```



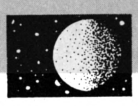
```
"Am=";CHR$(184);".d.h";fo2$
1300 LOCATE #3,59,18:PRINT #3,fo3$; >NV
"Ao=";CHR$(184);".d.(r+h)";fo3$
1310 IF INKEY(18)=0 THEN 1400        >VE
1320 IF INKEY(47)=0 THEN 1350        >WD
1330 IF INKEY(9)=0 THEN CLS:RETURN   >CL
1340 GOTO 1310                       >MA
1350 fo=fo+1:IF fo>3 THEN fo=1       >XF
1360 ON fo GOSUB 1370,1380,1390:GOT >GD
O 1280
1370 fo1$=CHR$(24):fo2$="":fo3$="": >JJ
RETURN
1380 fo2$=CHR$(24):fo1$="":fo3$="": >JK
RETURN
1390 fo3$=CHR$(24):fo1$="":fo2$="": >JL
RETURN
1400 CALL &BB03:CLS#1:ON fo GOSUB 1 >PY
410,1450,1490:CLS#1:GOSUB 5500:GOSU
B 5590:GOTO 1260
1410 TAB1=2:TAB2=2:GOSUB 5250        >XN
1420 TAB1=2:TAB2=6:GOSUB 5170        >XV
1430 volu=ROUND(((PI*d2^2)/4)*haut, >HV
4):LOCATE #1,2,10:PRINT#1,"Le volum
e est de :":PRINT #1," ";volu;" cm"
;CHR$(254);" ."
1440 CALL &BB06:RETURN               >RL
1450 TAB1=2:TAB2=2:GOSUB 5250        >XT
1460 TAB1=2:TAB2=6:GOSUB 5170        >XZ
1470 air2=ROUND(PI*d2*haut,4):LOCAT >MJ
E #1,2,10:PRINT#1,"La surface later
ale":PRINT #1," est de :";air2;"cm"
;CHR$(255);" ."
1480 CALL &BB06:RETURN               >RQ
1490 TAB1=2:TAB2=2:GOSUB 5250        >XX
1500 TAB1=2:TAB2=6:GOSUB 5170        >XU
1510 air1=ROUND(PI*d2*((d2/2)+haut) >ZH
,4):LOCATE #1,2,14:PRINT#1,"La surf
ace totale":PRINT #1," est de :";ai
r1;"cm";CHR$(255);" ."
1520 CALL &BB06:RETURN               >RK
1530 ' cylindre creux                >YB
1540 MODE 2:GOSUB 5400:GOSUB 5590    >AU
1550 DEG                             >YC
1560 PLOT 360,180:FOR f%=1 TO 360 S >GF
TEP 10:DRAW 320+40*COS(f%),180+20*S
IN(f%):NEXT
1570 PLOT 360,360:FOR f%=1 TO 360 S >GG
TEP 10:DRAW 320+40*COS(f%),360+20*S
IN(f%):NEXT
1580 PLOT 360,180:DRAWR 0,180:PLOT  >XT
280,180:DRAWR 0,180
1590 PLOT 340,180:FOR f%=1 TO 360 S >GD
TEP 10:DRAW 320+20*COS(f%),180+10*S
IN(f%):NEXT
1600 PLOT 340,360:FOR f%=1 TO 360 S >FD
TEP 10:DRAW 320+20*COS(f%),360+10*S
IN(f%):NEXT
1610 PLOT 340,360:DRAWR 0,-180:PLOT >YZ
 300,180:DRAWR 0,180
1620 PLOT 360,180:DRAWR 0,-60:DRAWR >NL
 -8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -8
0,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8,4
:DRAWR 0,60
1630 PLOT 280,180:DRAWR -30,0:DRAWR >RE
 -4,8:MOVER 8,0:DRAWR -4,-8:DRAWR 0
,180:DRAWR -4,-8:MOVER 8,0:DRAWR -4
,8:DRAWR 30,0
1640 PLOT 340,270:DRAWR -40,0       >WZ
1650 LOCATE 32,8:PRINT "h":LOCATE 4 >TT
1,18:PRINT "D"
1660 LOCATE 41,8:PRINT "d"          >UM
1670 fo1$=CHR$(24):fo2$=""          >UK
1680 fo=1                           >EG
1690 LOCATE #3,59,8:PRINT #3,fo1$:" >FG
V=((";CHR$(184);".h)/4)*(D";CHR$(25
5);"-d";CHR$(255);")";fo1$
1700 LOCATE #3,59,16:PRINT #3,fo2$; >FE
"h=(4.V)/(";CHR$(184);"(D";CHR$(255
);"-d";CHR$(255);"))";fo2$
1710 IF INKEY(18)=0 THEN 1790       >WN
1720 IF INKEY(47)=0 THEN 1750       >WM
1730 IF INKEY(9)=0 THEN CLS:RETURN  >CQ
1740 GOTO 1710                      >MJ
1750 fo=fo+1:IF fo>2 THEN fo=1      >XJ
1760 ON fo GOSUB 1770,1780:GOTO 169 >CE
0
1770 fo1$=CHR$(24):fo2$="":RETURN   >BN
1780 fo2$=CHR$(24):fo1$="":RETURN   >BP
1790 CALL &BB03:CLS#1:ON fo GOSUB 1 >GZ
800,1860:CLS#1:GOSUB 5500:GOSUB 559
0:GOTO 1670
1800 TAB1=2:TAB2=2:GOSUB 5170       >XT
1810 TAB1=2:TAB2=6:GOSUB 5220       >XU
1820 TAB1=2:TAB2=10:GOSUB 5250      >YT
1830 IF d2>d1 THEN LOCATE #1,1,1:PR >AE
INT CHR$(7);:GOTO 1820
1840 volu=ROUND(((PI*haut)/4)*(d1^2 >XQ
-d2^2),4):LOCATE #1,2,14:PRINT#1,"L
e volume est de :":PRINT #1," ";vol
u;" cm";CHR$(254);" ."
1850 CALL &BB06:RETURN              >RR
1860 TAB1=2:TAB2=2:GOSUB 5370       >XB
1870 TAB1=2:TAB2=6:GOSUB 5220       >XA
1880 TAB1=2:TAB2=10:GOSUB 5250      >YZ
1890 IF d2>d1 THEN LOCATE #1,1,1:PR >AT
INT CHR$(7);:GOTO 1880
1900 haut=ROUND((4*vol)/(PI*(d1^2-d >WH
2^2)),4):LOCATE #1,2,14:PRINT#1,"La
 hauteur est de :":PRINT #1," ";hau
t;" cm."
1910 CALL &BB06:RETURN              >RN
1920 ' PYRAMIDE                     >YE
1930 MODE 2:GOSUB 5400:GOSUB 5590   >AX
1940 PLOT 360,200:DRAWR -100,0:DRAW >NZ
R 40,30:DRAWR 100,0:DRAWR -40,-30
1950 DRAWR -60,30:MOVER 100,0:DRAWR >LH
 -140,-30
1960 DRAWR 70,120:DRAWR -30,-90:MOV >LY
ER 30,90:DRAWR 70,-90:MOVER -40,-30
:DRAWR -30,120
1970 DRAWR 0,-105:MOVER 0,105:DRAWR >KC
 50,-105
1980 MOVER -50,0:DRAWR -100,0:DRAWR >TM
 -4,8:MOVER 8,0:DRAWR -4,-8:DRAWR 0
,105:DRAWR 4,-8:MOVER -8,0:DRAWR 4,
8:DRAWR 100,0
1990 MOVER 35,-45:DRAWR 10,30:MOVER >XB
 -10,-55:DRAWR 40,5
2000 MOVE 360,200:DRAWR 0,-20:DRAWR >QD
 -8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -1
00,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8,
4:DRAWR 0,20
2010 MOVE 360,200:DRAWR 20,0:DRAWR  >RW
0,5:MOVER 8,-3:DRAWR -8,-2:DRAWR 40
,30:DRAWR -8,-2:MOVER 8,-3:DRAWR 0,
5:DRAWR -20,0
2020 LOCATE 29,9:PRINT "h":LOCATE 4 >TB
8,6:PRINT "m":LOCATE 52,9:PRINT "m1
":LOCATE 52,12:PRINT "b":LOCATE 40,
14:PRINT "a"
2030 LOCATE 30,18:PRINT"A1 : surfac >YR
e de la base"
2040 fo1$=CHR$(24):fo2$="":fo3$="": >JA
fo4$=""
2050 fo=1                           >DJ
2060 LOCATE #3,59,6:PRINT #3,fo1$;" >UY
V=(A1.h)/3";fo1$
2070 LOCATE #3,59,10:PRINT #3,fo2$: >CH
"m1= h";CHR$(255);"+a";CHR$(255);"/
4";fo2$
2080 LOCATE #3,59,14:PRINT #3,fo3$: >UV
"Am=2a.m1";fo3$
2090 LOCATE #3,59,18:PRINT #3,fo4$; >CD
"m= m1";CHR$(255);"+a";CHR$(255);"/
4";fo4$
2100 ' radicaux                     >XF
2110 PLOT 478,128:DRAWR 4,-14:DRAWR >HD
 4,14:DRAWR 66,0:PLOT 486,256:DRAWR
 4,-14:DRAWR 4,14:DRAWR 58,0
2120 IF INKEY(18)=0 THEN 2220       >VF
2130 IF INKEY(47)=0 THEN 2160       >WD
2140 IF INKEY(9)=0 THEN CLS:RETURN  >CL
2150 GOTO 2120                      >MA
2160 fo=fo+1:IF fo>4 THEN fo=1      >XG
2170 ON fo GOSUB 2180,2190,2200,221 >LB
0:GOTO 2060
2180 fo1$=CHR$(24):fo2$="":fo3$="": >TW
fo4$="":RETURN
2190 fo2$=CHR$(24):fo1$="":fo3$="": >TX
fo4$="":RETURN
2200 fo3$=CHR$(24):fo1$="":fo2$="": >TN
```



```
fo4$="":RETURN
2210 fo4$=CHR$(24):fo1$="":fo2$="":  >TP
fo3$="":RETURN
2220 CALL &BB03:CLS#1:ON fo GOSUB 2 >WX
230,2270,2310,2350:CLS#1:GOSUB 5500
:GOSUB 5590:GOTO 2040
2230 TAB1=2:TAB2=2:GOSUB 5340       >XP
2240 TAB1=2:TAB2=6:GOSUB 5170       >XW
2250 volu=ROUND((air1*haut)/3,4):LO >ZR
CATE #1,2,10:PRINT#1,"Le volume est
 de :":PRINT #1," ";volu;" cm";CHR$
(254);" ."
2260 CALL &BB06:RETURN              >RM
2270 TAB1=2:TAB2=2:GOSUB 5170       >XV
2280 TAB1=2:TAB2=6:GOSUB 5010       >XT
2290 m1=ROUND(SQR(haut^2+(co1^2/4)) >PJ
,4):LOCATE #1,2,10:PRINT#1,"La long
ueur m1 est de:":PRINT #1," ";m1;"
cm."
2300 CALL &BB06:RETURN              >RG
2310 TAB1=2:TAB2=2:GOSUB 5010       >XG
2320 TAB1=2:TAB2=6:GOSUB 5100       >XM
2330 air1=ROUND(2*co1*lo2,4):LOCATE >NH
 #1,2,10:PRINT#1,"La surface latera
le ":PRINT #1," est de: ";air1;" cm
";CHR$(255);" ."
2340 CALL &BB06:RETURN              >RL
2350 TAB1=2:TAB2=2:GOSUB 5100       >XL
2360 TAB1=2:TAB2=6:GOSUB 5010       >XR
2370 lo1=ROUND(SQR(lo2^2+(co1^2/4)) >PQ
,4):LOCATE #1,2,10:PRINT#1,"La long
ueur m est de:":PRINT #1," ";lo1;"
cm."
2380 CALL &BB06:RETURN              >RQ
2390 ' tronc de pyramide            >YG
2400 MODE 2:GOSUB 5400:GOSUB 5590   >AP
2410 PLOT 360,200:DRAWR -100,0:DRAW >NR
R 40,30:DRAWR 100,0:DRAWR -40,-30
2420 DRAWR -60,30:MOVER 100,0:DRAWR >LA
 -140,-30
2430 DRAWR 40,80:DRAWR 50,0         >VH
2440 DRAWR 10,-80:MOVER -10,80:DRAW >LX
R 10,7:DRAWR -50,0:DRAWR -10,-7
2450 MOVER 10,7:DRAWR -10,-55       >WZ
2460 MOVER 100,0:DRAWR -40,55       >WY
2470 MOVE 360,200:DRAWR 20,0:DRAWR  >RG
0,5:MOVER 8,-3:DRAWR -8,-2:DRAWR 40
,30:DRAWR -8,-2:MOVER 8,-3:DRAWR 0,
5:DRAWR -20,0
2480 MOVE 360,200:DRAWR 0,-20:DRAWR >QR
 -8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -1
00,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8,
4:DRAWR 0,20
2490 MOVE 260,200::DRAWR -50,0:DRAW >TA
R -4,8:MOVER 8,0:DRAWR -4,-8:DRAWR
0,85:DRAWR 4,-8:MOVER -8,0:DRAWR 4,
8:DRAWR 120,0
2500 LOCATE 27,11:PRINT "h":LOCATE  >XZ
52,12:PRINT "b":LOCATE 40,14:PRINT
"a"
2510 LOCATE 25,17:PRINT"A1 : surfac >HJ
e base inferieure"
2520 LOCATE 25,19:PRINT"A2 : surfac >HT
e base superieure"
2530 LOCATE #3,58,12:PRINT #3,CHR$( >VR
24);"V=(h/3).(A1+A2+ A1.A2)";CHR$(2
4)
2540 ' radical                      >YD
2550 PLOT 576,226:DRAWR 4,-14,0:DRA >ZC
WR 4,14:DRAWR 42,0,13
2560 PRINT CHR$(23);CHR$(0);        >WN
2570 IF INKEY(18)=0 THEN 2600       >WJ
2580 IF INKEY(9)=0 THEN CLS:RETURN  >CV
2590 GOTO 2570                      >NH
2600 CALL &BB03:CLS#1:GOSUB 2610:CL >TJ
S#1:GOSUB 5500:GOSUB 5590:GOTO 2530

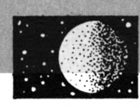
2610 tab1=2:tab2=2:GOSUB 5170       >XT
2620 tab1=2:tab2=6:GOSUB 5340       >XX
2630 tab1=2:tab2=10:GOSUB 5280      >YW
2640 volu=ROUND((haut/3)*(air1+air2 >UG
+SQR(air1*air2)),4):LOCATE #1,2,14:
PRINT#1,"Le volume est de :":PRINT
#1," ";volu;" cm";CHR$(254);" ."
2650 CALL &BB06:RETURN              >RQ
2660 ' cone                         >YG
2670 MODE 2:GOSUB 5400:GOSUB 5590   >AZ
2680 DEG                            >YH
2690 PLOT 380,160:FOR f%=0 TO 360 S >GP
TEP 10:DRAW 320+60*COS(f%),160+15*S
IN(f%):NEXT
2700 DRAW 320,300:DRAW 260,160      >WJ
2710 DRAWR 0,-30:DRAWR 8,4:MOVER 0, >ZH
-8:DRAWR -8,4:DRAWR 120,0:DRAWR -8,
4:MOVER 0,-8:DRAWR 8,4
2720 DRAWR 0,30:DRAWR 40,0:DRAWR -4 >QG
,8:MOVER 8,0:DRAWR -4,-8:DRAWR 0,14
0:DRAWR -4,-8:MOVER 8,0:DRAWR -4,8:
DRAWR -100,0
2730 DRAWR -30,10:DRAWR 0,-10:MOVER >DZ
 -10,6:DRAWR 10,4:DRAW 230,160:DRAW
R 10,4:MOVER -10,6:DRAWR 0,-10:DRAW
R 30,0
2740 LOCATE 33,10:PRINT "m":LOCATE  >XL
53,11:PRINT "h":LOCATE 41,17:PRINT
"D"
2750 fo1$=CHR$(24):fo2$="":fo3$="": >JJ
fo4$=""
2760 fo=1                           >EG
2770 LOCATE #3,59,6:PRINT #3,fo1$;" >CP
V=(";CHR$(184);".r";CHR$(255);".h)/
3";fo1$
2780 LOCATE #3,59,10:PRINT #3,fo2$; >VL
"m= h";CHR$(255);"+r";CHR$(255);fo2
$
2790 LOCATE #3,59,14:PRINT #3,fo3$; >JV
"Am=";CHR$(184);".r.m";fo3$
2800 LOCATE #3,59,18:PRINT #3,fo4$; >NC
"Ao=r.";CHR$(184);"(r+m)";fo4$
2810 ' radicaux                     >YD
2820 PLOT 478,256:DRAWR 4,-14:DRAWR >UC
 4,14:DRAWR 40,0
2830 IF INKEY(18)=0 THEN 2930       >WP
2840 IF INKEY(47)=0 THEN 2870       >WW
2850 IF INKEY(9)=0 THEN CLS:RETURN  >CV
2860 GOTO 2830                      >NG
2870 fo=fo+1:IF fo>4 THEN fo=1      >XQ
2880 ON fo GOSUB 2890,2900,2910,292 >MK
0:GOTO 2770
2890 fo1$=CHR$(24):fo2$="":fo3$="": >TE
fo4$="":RETURN
2900 fo2$=CHR$(24):fo1$="":fo3$="": >TW
fo4$="":RETURN
2910 fo3$=CHR$(24):fo1$="":fo2$="": >TX
fo4$="":RETURN
2920 fo4$=CHR$(24):fo1$="":fo2$="": >TY
fo3$="":RETURN
2930 CALL &BB03:CLS#1:ON fo GOSUB 2 >XW
940,2980,3020,3060:CLS#1:GOSUB 5500
:GOSUB 5590:GOTO 2750
2940 tab1=2:tab2=2:GOSUB 5190       >XB
2950 tab1=2:tab2=6:GOSUB 5170       >XE
2960 volu=ROUND((PI*ra^2*haut)/3,4) >ET
:LOCATE #1,2,10:PRINT#1,"Le volume
est de :":PRINT #1," ";volu;" cm":C
HR$(254);" ."
2970 CALL &BB06:RETURN              >RW
2980 TAB1=2:TAB2=2:GOSUB 5170       >XD
2990 TAB1=2:TAB2=6:GOSUB 5190       >XL
3000 lo1=ROUND(SQR(haut^2+ra^2),4): >HL
LOCATE #1,2,10:PRINT#1,"La longueur
 m est de:":PRINT #1," ";lo1;" cm."

3010 CALL &BB06:RETURN              >RF
3020 TAB1=2:TAB2=2:GOSUB 5190       >XQ
3030 TAB1=2:TAB2=6:GOSUB 5070       >XT
3040 airm=ROUND(PI*ra*lo1,4):LOCATE >JN
 #1,2,10:PRINT#1,"La surface latera
le":PRINT #1," est de";airm;" cm";C
HR$(255);" ."
3050 CALL &BB06:RETURN              >RK
3060 TAB1=2:TAB2=2:GOSUB 5190       >XV
3070 TAB1=2:TAB2=6:GOSUB 5070       >XX
3080 airo=ROUND(ra*PI*(ra+lo1),4):L >NE
OCATE #1,2,10:PRINT#1,"La surface t
otale":PRINT #1," est de";airo;" cm
";CHR$(255);" ."
3090 CALL &BB06:RETURN              >RP
3100 ' tronc de cone                >XG
3110 MODE 2:GOSUB 5400:GOSUB 5590   >AN
3120 DEG                            >XH
```



```
3130 PLOT 380,160:FOR f%=0 TO 360 S >TL
TEP 10:DRAW 320+60*COS(f%),160+15*S
IN(f%):NEXT:PLOT 350,220:FOR f%=0 T
O 360 STEP 10:DRAW 320+30*COS(f%),2
20+7*SIN(f%):NEXT
3140 MOVE 380,160:DRAW 350,220:MOVE >YR
 260,160:DRAW 290,220
3150 MOVE 260,160:DRAWR 0,-40:DRAWR >NT
 8,4:MOVER 0,-8:DRAWR -8,4:DRAWR 12
0,0:DRAWR -8,4:MOVER 0,-8:DRAWR 8,4
:DRAWR 0,40
3160 MOVE 290,220:DRAWR 0,40:DRAWR  >MQ
8,4:MOVER 0,-8:DRAWR -8,4:DRAWR 60,
0:DRAWR -8,4:MOVER 0,-8:DRAWR 8,4:D
RAWR 0,-40
3170 MOVE 290,220:DRAWR -30,10:DRAW >CP
R 0,-10:MOVER -10,6:DRAWR 10,4:DRAW
 230,160:DRAWR 10,4:MOVER -10,6:DRA
WR 0,-10:DRAWR 30,0
3180 MOVE 380,160:DRAWR 20,0:DRAWR  >QL
-4,8:MOVER 8,0:DRAWR -4,-8:DRAWR 0,
60:DRAWR -4,-8:MOVER 8,0:DRAWR -4,8
:DRAWR -50,0
3190 LOCATE 31,13:PRINT "m":LOCATE  >EY
51,13:PRINT "h":LOCATE 41,18:PRINT
"D":LOCATE 41,9:PRINT "d"
3200 LOCATE 25,4:PRINT"A1 : surface >ZH
 inferieure"
3210 LOCATE 25,6:PRINT"A2 : surface >AV
  superieure"
3220 fo1$=CHR$(24):fo2$="":fo3$=""  >AA
3230 fo=1                           >DK
3240 LOCATE #3,59,6:PRINT #3,fo1$;" >NL
V=(("; CHR$(184);".h)/12).":LOCATE #
3,59,7:PRINT #3,"(D";CHR$(255);"+D.
d+d";CHR$(255);")";fo1$
3250 LOCATE #3,59,12:PRINT #3,fo2$; >FP
"m= ((D-d)/2)";CHR$(255);"+h";CHR$(
255);fo2$
3260 LOCATE #3,59,18:PRINT #3,fo3$; >WE
"Am=((";CHR$(184);".m)/2).(D+d)";fo
3$
3270 ' radicaux                     >YE
3280 PLOT 478,224:DRAWR 4,-14:DRAWR >VW
 4,14:DRAWR 110,0
3290 IF INKEY(18)=0 THEN 3390       >WR
3300 IF INKEY(47)=0 THEN 3330       >WD
3310 IF INKEY(9)=0 THEN CLS:RETURN  >CL
3320 GOTO 3290                      >MK
3330 fo=fo+1:IF fo>3 THEN fo=1      >XF
3340 ON fo GOSUB 3360,3370,3380     >XE
3350 GOTO 3240                      >MH
3360 fo1$=CHR$(24):fo2$="":fo3$="": >JK
RETURN
3370 fo2$=CHR$(24):fo1$="":fo3$="": >JL
RETURN
3380 fo3$=CHR$(24):fo1$="":fo2$="": >JM
RETURN
3390 CALL &BB03:CLS#1:ON fo GOSUB 3 >PG
400,3460,3520:CLS#1:GOSUB 5500:GOSU
B 5590:GOTO 3220
3400 TAB1=2:TAB2=2:GOSUB 5170       >XQ
3410 TAB1=2:TAB2=6:GOSUB 5220       >XR
3420 TAB1=2:TAB2=10:GOSUB 5250      >YQ
3430 IF d2>d1 THEN LOCATE #1,1,1:PR >AA
INT CHR$(7);:GOTO 3420
3440 volu=ROUND(((PI*haut)/12)*(d1^ >JQ
2+d1*d2+d2^2),4):LOCATE #1,2,14:PRI
NT#1,"Le volume est de :":PRINT #1,
" ";volu;"cm";CHR$(254);" ."
3450 CALL &BB06:RETURN              >RP
3460 TAB1=2:TAB2=2:GOSUB 5220       >XT
3470 TAB1=2:TAB2=6:GOSUB 5250       >XB
3480 TAB1=2:TAB2=10:GOSUB 5170      >YY
3490 IF d2>d1 THEN LOCATE #1,1,1:PR >AN
INT CHR$(7);:GOTO 3480
3500 lo1=ROUND(SQR(((d1-d2)/2)^2+ha >YG
ut^2),4):LOCATE #1,2,14:PRINT#1,"La
 longueur m est de:":PRINT #1," ";l
o1;"cm ."
3510 CALL &BB06:RETURN              >RL
3520 TAB1=2:TAB2=2:GOSUB 5070       >XT
3530 TAB1=2:TAB2=6:GOSUB 5220       >XV
3540 TAB1=2:TAB2=10:GOSUB 5250      >YU
3550 IF d2>d1 THEN LOCATE #1,1,1:PR >AG
INT CHR$(7);:GOTO 3540
3560 airm=ROUND(((PI*lo1)/2)*(d1+d2 >FB
),4):LOCATE #1,2,14:PRINT#1,"La sur
face laterale":PRINT #1," est de :"
;airm;"cm";CHR$(255);" ."
3570 CALL &BB06:RETURN              >RT
3580 ' SPHERE                       >YJ
3590 MODE 2:GOSUB 5400:GOSUB 5590   >AB
3600 DEG                            >YA
3610 PLOT 400,200:FOR F%=0 TO 360 S >FB
TEP 10:DRAW 320+80*COS(F%),200+80*S
IN(F%):NEXT
3620 PLOT 400,200:FOR F%=0 TO 360 S >FW
TEP 10:DRAW 320+80*COS(F%),200+20*S
IN(F%):NEXT
3630 MOVE 320,280:DRAWR -100,0:DRAW >XA
R -4,-8:MOVER 8,0:DRAWR -4,8:DRAWR
0,-160:DRAWR -4,8:MOVER 8,0:DRAWR -
4,-8:DRAWR 100,0
3640 LOCATE 28,13:PRINT "d"         >VK
3650 fo1$=CHR$(24):fo2$=""          >UK
3660 fo=1                           >EG
3670 LOCATE #3,59,9:PRINT #3,fo1$;" >ZB
V=(";CHR$(184);".d";CHR$(254);")/6"
;fo1$
3680 LOCATE #3,59,16:PRINT #3,fo2$; >UN
"Ao=";CHR$(184);".d";CHR$(255);fo2$
3690 IF INKEY(18)=0 THEN 3780       >WZ
3700 IF INKEY(47)=0 THEN 3730       >WM
3710 IF INKEY(9)=0 THEN CLS:RETURN  >CQ
3720 GOTO 3690                      >NH
3730 fo=fo+1:IF fo>2 THEN fo=1      >XJ
3740 ON fo GOSUB 3760,3770          >TY
3750 GOTO 3670                      >NJ
3760 fo1$=CHR$(24):fo2$="":RETURN   >BF
3770 fo2$=CHR$(24):fo1$="":RETURN   >BQ
3780 CALL &BB03:CLS#1:ON fo GOSUB 3 >HA
790,3820:CLS#1:GOSUB 5500:GOSUB 559
0:GOTO 3650
3790 TAB1=2:TAB2=2:GOSUB 5250       >XC
3800 volu=ROUND((PI*d2^3)/6,4):LOCA >RT
TE #1,2,8:PRINT#1,"Le volume est de
 :":PRINT #1," ";volu;"cm";CHR$(254
);" ."
3810 CALL &BB06:RETURN              >RP
3820 TAB1=2:TAB2=2:GOSUB 5250       >XW
3830 airo=ROUND(PI*d2^2,4):LOCATE # >AM
1,2,8:PRINT#1,"La surface totale":P
RINT #1," est de :";airo;"cm";CHR$(
255);" ."
3840 CALL &BB06:RETURN              >RT
3850 ' calotte spherique            >YJ
3860 MODE 2:GOSUB 5400:GOSUB 5590   >AB
3870 DEG                            >YK
3880 PLOT 400,200:FOR F%=0 TO 360 S >GC
TEP 10:DRAW 320+80*COS(F%),200+80*S
IN(F%):NEXT
3890 PLOT 400,200:FOR F%=0 TO 360 S >FF
TEP 10:DRAW 320+80*COS(F%),200+20*S
IN(F%):NEXT
3900 FOR F=10 TO 0 STEP -2:RA1=320+ >ZQ
78*COS(75):RA2=190+80*SIN(75):PLOT
RA1,RA2:FOR G%=1 TO 360 STEP 10:DRA
W 320+2*(RA1-320)*COS(G%),RA2+(F+1)
*SIN(G%):NEXT:NEXT
3910 MOVE 320-78*COS(75),RA2:DRAWR  >ZQ
-50,0:DRAWR -2,4:DRAWR 4,0:DRAWR -2
,-4:DRAWR 0,280-RA2:DRAWR -2,-4:DRA
WR 4,0:DRAWR -2,4:DRAW 320,280
3920 MOVE 300-80*COS(75),RA2:DRAWR  >YV
0,60:DRAWR 8,4:MOVER 0,-8:DRAWR -8,
4:DRAW RA1+20,RA2+60:DRAWR -8,4:MOV
ER 0,-8:DRAWR 8,4:DRAWR 0,-60
3930 MOVE 400,200:DRAWR 0,-100:DRAW >VP
R -8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -
160,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8
,4:DRAW 240,200
3940 LOCATE 40,5:PRINT"s":LOCATE 30 >VB
,8:PRINT "h":LOCATE 40,19:PRINT "d"

3950 fo1$=CHR$(24):fo2$="":fo3$=""  >AL
3960 fo=1                           >EK
3970 LOCATE #3,59,6:PRINT #3,fo1$;" >PM
V=((";CHR$(184);".d";CHR$(255);")/6
).(3d-2h)";fo1$
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```
3980 LOCATE #3,59,12:PRINT #3,fo2$; >HF
"Am=";CHR$(184);".d.h";fo2$
3990 LOCATE #3,59,18:PRINT #3,fo3$; >EG
"Am=(";CHR$(184);"/4).(s";CHR$(255)
;"+4h";CHR$(255);")";fo3$
4000 IF INKEY(18)=0 THEN 4090       >WD
4010 IF INKEY(47)=0 THEN 4040       >WB
4020 IF INKEY(9)=0 THEN CLS:RETURN  >CK
4030 GOTO 4000                      >LJ
4040 fo=fo+1:IF fo>3 THEN fo=1      >XE
4050 ON fo GOSUB 4060,4070,4080:GOT >GH
0 3970
4060 fo1$=CHR$(24):fo2$="":fo3$="": >JH
RETURN
4070 fo2$=CHR$(24):fo1$="":fo3$="": >JJ
RETURN
4080 fo3$=CHR$(24):fo1$="":fo2$="": >JK
RETURN
4090 CALL &BB03:CLS#1:ON fo GOSUB 4 >PM
100,4140,4180:CLS#1:GOSUB 5500:GOSU
B 5590:GOTO 3950
4100 TAB1=2:TAB2=2:GOSUB 5170       >XN
4110 TAB1=2:TAB2=6:GOSUB 5250       >XT
4120 volu=ROUND(((PI*HAUT^2)/6)*(3* >CQ
D2-2*HAUT),4):LOCATE #1,2,10:PRINT#
1,"Le volume est de :":PRINT #1," "
;volu;"cm";CHR$(254);" ."
4130 CALL &BB06:RETURN              >RK
4140 TAB1=2:TAB2=2:GOSUB 5250       >XR
4150 TAB1=2:TAB2=6:GOSUB 5170       >XY
4160 airm=ROUND(PI*d2*haut,4):LOCAT >NH
E #1,2,10:PRINT#1,"La surface later
ale":PRINT #1," est de :";airm;"cm"
;CHR$(255);" ."
4170 CALL &BB06:RETURN              >RP
4180 TAB1=2:TAB2=2:GOSUB 5310       >XT
4190 TAB1=2:TAB2=6:GOSUB 5170       >XC
4200 airm=ROUND((PI/4)*(seg^2+4*hau >NH
t^2),4):LOCATE #1,2,10:PRINT#1,"La
surface laterale":PRINT #1," est de
 :";airm;"cm";CHR$(255);" ."
4210 CALL &BB06:RETURN              >RJ
4220 ' tonneau                      >YA
4230 MODE 2:GOSUB 5400:GOSUB 5590   >AT
4240 DEG:PLOT 365,180:FOR f%=0 TO 3 >MW
60 STEP 10:DRAW 320+45*COS(f%),180+
15*SIN(f%):NEXT
4250 PLOT 365,340:FOR f%=0 TO 360 S >GP
TEP 10:DRAW 320+45*COS(f%),340+15*S
IN(f%):NEXT
4260 PLOT 385,260:FOR f%=0 TO 360 S >GV
TEP 10:DRAW 320+65*COS(f%),260+22*S
IN(f%):NEXT
4270 MOVE 365,180:DRAWR 10,27:DRAWR >TU
 6,26:DRAWR 4,27:DRAWR -4,27:DRAWR
-6,26:DRAWR -10,27
4280 MOVE 275,180:DRAWR -10,27:DRAW >TK
R -6,26:DRAWR -4,27:DRAWR 4,27:DRAW
R 6,26:DRAWR 10,27
4290 MOVE 385,260:DRAWR -8,4:MOVER  >CG
0,-8:DRAWR 8,4:DRAWR -130,0:DRAWR 8
,4:MOVER 0,-8:DRAWR -8,4
4300 MOVE 275,340:DRAWR -80,0:DRAWR >UK
 -4,-8:MOVER 8,0:DRAWR -4,8:DRAWR 0
,-160:DRAWR -4,8:MOVER 8,0:DRAWR -4
,-8:DRAWR 80,0
4310 MOVE 365,180:DRAWR 0,-50:DRAWR >NF
 -8,4:MOVER 0,-8:DRAWR 8,4:DRAWR -9
0,0:DRAWR 8,4:MOVER 0,-8:DRAWR -8,4
:DRAWR 0,50
4320 LOCATE 25,9:PRINT "h":LOCATE 4 >VA
1,9:PRINT "D":LOCATE 41,17:PRINT "d
"
4330 fo1$=CHR$(24):fo2$=""          >UF
4340 fo=1                           >EC
4350  LOCATE #3,58,9:PRINT #3,fo1$; >KL
"V=((";CHR$(184);".h)/12).(2D";CHR$
(255);"+d";CHR$(255);")";fo1$
4360 LOCATE #3,57,16:PRINT #3,fo2$; >VD
"D= ((6.V)/(";CHR$(184);".h))-(d";C
HR$(255);"/2)";fo2$
4370 ' radicaux                     >YG
4380 PLOT 464,160:DRAWR 4,-14:DRAWR >VX
 4,14:DRAWR 160,0
4390 IF INKEY(18)=0 THEN 4480       >WV
4400 IF INKEY(47)=0 THEN 4430       >WH
4410 IF INKEY(9)=0 THEN CLS:RETURN  >CN
4420 GOTO 4390                      >ND
4430 fo=fo+1:IF fo>2 THEN fo=1      >XG
4440 ON fo GOSUB 4460,4470          >TR
4450 GOTO 4350                      >NC
4460 fo1$=CHR$(24):fo2$="":RETURN   >BM
4470 fo2$=CHR$(24):fo1$="":RETURN   >BN
4480 CALL &BB03:CLS#1:ON fo GOSUB 4 >GA
490,4540:CLS#1:GOSUB 5500:GOSUB 559
0:GOTO 4330
4490 TAB1=2:TAB2=2:GOSUB 5170       >XB
4500 TAB1=2:TAB2=6:GOSUB 5220       >XT
4510 TAB1=2:TAB2=10:GOSUB 5250      >YR
4520 volu=ROUND(((PI*HAUT)/12)*(2*D >CH
1^2+D2^2),4):LOCATE #1,2,14:PRINT#1
,"Le volume est de :":PRINT #1," ";
volu;" cm";CHR$(254);" ."
4530 CALL &BB06:RETURN              >RP
4540 TAB1=2:TAB2=2:GOSUB 5370       >XZ
4550 TAB1=2:TAB2=6:GOSUB 5170       >XC
4560 TAB1=2:TAB2=10:GOSUB 5250      >YX
4570 DIA=ROUND(SQR(((6*VOL)/(PI*HAU >JG
T))-(D2^2/2)),4):LOCATE #1,2,14:PRI
NT#1,"Le diametre D est":PRINT #1,"
 de";DIA;"cm ."
4580 CALL &BB06:RETURN              >RV
4590 ' ZONE SPHERIQUE               >ZA
4600 MODE 2:GOSUB 5400:GOSUB 5590   >AU
4610 DEG                            >YC
4620 PLOT 400,200:FOR F%=0 TO 360 S >FD
TEP 10:DRAW 320+80*COS(F%),200+80*S
IN(F%):NEXT
4630 PLOT 400,200:FOR F%=0 TO 360 S >FY
TEP 10:DRAW 320+80*COS(F%),200+20*S
IN(F%):NEXT
4640 FOR F=0 TO 20:RA1=320+78*COS(1 >AK
35-F):RA2=200+78*SIN(135-F):PLOT RA
1,RA2
4650 FOR G%=360 TO 180 STEP -10:DRA >XU
W 320+(RA1-320)*COS(G%),RA2+0.3*(RA
2-F-200)*SIN(G%):NEXT
4660 NEXT                           >LH
4670 MOVE RA1,RA2:DRAWR 0,40:DRAWR  >NQ
8,4:MOVER 0,-8:DRAWR -8,4:DRAW 320-
78*COS(115),240+78*SIN(115):DRAWR -
8,4:MOVER 0,-8:DRAWR 8,4:DRAWR 0,-4
0
4680 MOVE 240,200:DRAWR 18,4:MOVER  >GD
0,-8:DRAWR -18,4:DRAWR 160,0:DRAWR
-18,4:MOVER 0,-8:DRAWR 18,4
4690 MOVE 320+78*COS(135),200+78*SI >KC
N(135):DRAWR -40,0:DRAWR -2,4:DRAWR
 4,0:DRAWR -2,-4:DRAWR 0,-(200+78*S
IN(135)-RA2):DRAWR -2,-4:DRAWR 4,0:
DRAWR -2,4:DRAW RA1,RA2
4700 MOVE 320+78*COS(135),200+78*SI >UU
N(135):DRAWR 0,100:DRAWR 8,4:MOVER
0,-8:DRAWR -8,4:DRAW 320-78*COS(135
),300+78*SIN(135):DRAWR -8,4:MOVER
0,-8:DRAWR 8,4:DRAWR 0,-100
4710 LOCATE 40,3:PRINT "d1":LOCATE  >FQ
40,6:PRINT "d2":LOCATE 40,13:PRINT
"d":LOCATE 27,9:PRINT "h"
4720 fo1$=CHR$(24):fo2$="":fo3$=""  >AG
4730 fo=1                           >EF
4740 LOCATE #3,58,6:PRINT #3,fo1$;" >WL
V=((";CHR$(184);".h)/24).":LOCATE #
3,58,7:PRINT #3,"(3d1";CHR$(255);"+
3d2";CHR$(255);"+4h";CHR$(255);")";
fo1$
4750 LOCATE #3,58,12:PRINT #3,fo2$; >HA
"Am=";CHR$(184);".d.h";fo2$
4760 LOCATE #3,57,18:PRINT #3,fo3$; >QN
"Ao=(";CHR$(184);"/4).(4d.h+d1";CHR
$(255);"+d2";CHR$(255);")";fo3$
4770 IF INKEY(18)=0 THEN 4860       >WZ
4780 IF INKEY(47)=0 THEN 4810       >WX
4790 IF INKEY(9)=0 THEN CLS:RETURN  >CA
4800 GOTO 4770                      >NH
4810 fo=fo+1:IF fo>3 THEN fo=1      >XK
4820 ON fo GOSUB 4830,4840,4850:GOT >GA
0 4740
4830 fo1$=CHR$(24):fo2$="":fo3$="": >JN
RETURN
4840 fo2$=CHR$(24):fo1$="":fo3$="": >JP
```



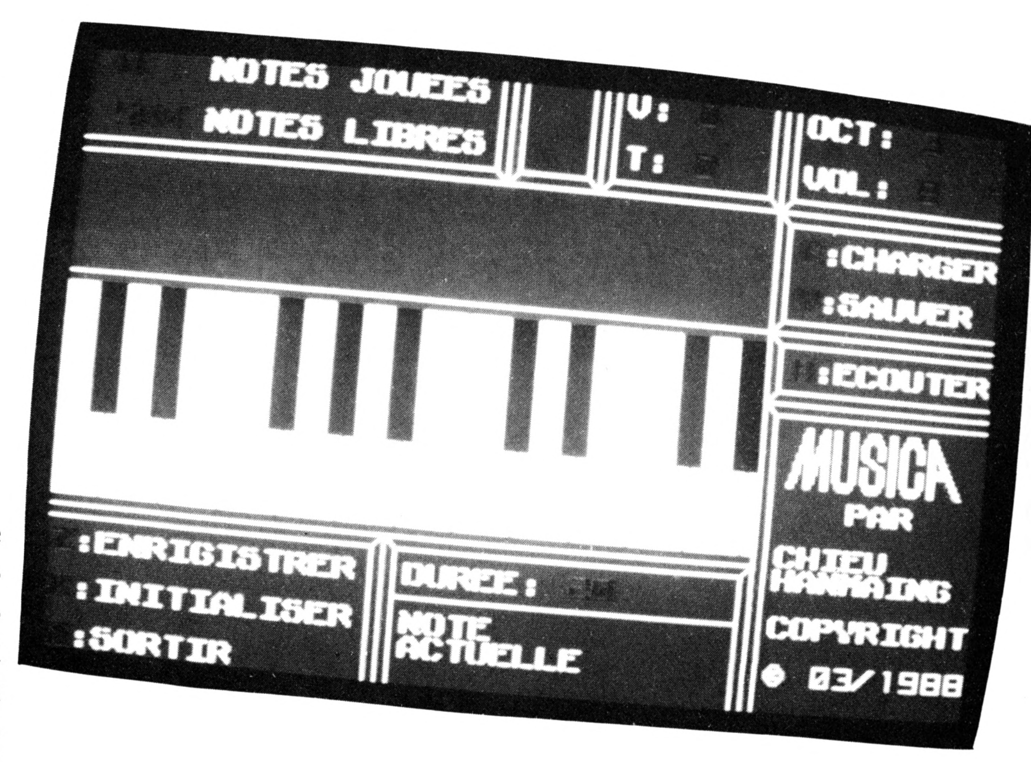
```
RETURN
4850 fo3$=CHR$(24):fo1$="":fo2$="": >JQ
RETURN
4860 CALL &BB03:CLS#1:ON fo GOSUB 4.>PG
870,4140,4930:CLS#1:GOSUB 5500:GOSU
B 5590:GOTO 4720
4870 TAB1=2:TAB2=2:GOSUB 5170       >XD
4880 TAB1=2:TAB2=6:GOSUB 5130       >XE
4890 TAB1=2:TAB2=10:GOSUB 5150      >YC
4900 IF d4>d3 THEN LOCATE #1,1,1:PR >AW
INT CHR$(7);:GOTO 4890
4910 volu=ROUND(((PI*HAUT)/24)*(3*D >AD
3^2+3*D4^2+4*HAUT^2),4):LOCATE #1,2
,14:PRINT#1,"Le volume est de :":PR
INT #1," ";volu;" cm";CHR$(254);" .
"
4920 CALL &BB06:RETURN              >RT
4930 TAB1=2:TAB2=2:GOSUB 5250       >XZ
4940 TAB1=2:TAB2=6:GOSUB 5170       >XF
4950 TAB1=2:TAB2=10:GOSUB 5130      >YX
4960 IF d3>d2 THEN LOCATE #1,1,1:PR >AX
INT CHR$(7);:GOTO 4950
4970 TAB1=1:TAB2=14:GOSUB 5150      >YE
4980 IF d4>d3 THEN LOCATE #1,1,1:PR >AD
INT CHR$(7);:GOTO 4970
4990 airo=ROUND((PI/4)*(4*d2*haut+d >MG
3^2+d4^2),4):LOCATE #1,2,18:PRINT #
1,"La surface totale":PRINT #1," es
t de :";airo;"cm";CHR$(255);
5000 CALL &BB06:RETURN              >RG
5010 LOCATE #1,tab1,tab2:PRINT#1,"E >KE
NTREZ LE COTE a en":PRINT#1,"  cm -
->";:LINE INPUT#1,"",co1$
5020 co1=VAL(co1$):IF co1=0 THEN LO >VX
CATE #1,1,1:PRINT#1,CHR$(7):GOTO 50
10
5030 RETURN                         >FB
5040 LOCATE #1,tab1,tab2:PRINT#1,"E >LB
NTREZ LE COTE b en":PRINT#1,"  cm -
->";:LINE INPUT#1,"",co2$
5050 co2=VAL(co2$):IF co2=0 THEN LO >VG
CATE #1,1,1:PRINT#1,CHR$(7):GOTO 50
40
5060 RETURN                         >FE
5070 LOCATE #1,tab1,tab2:PRINT#1,"E >TB
NTREZ LA LONGUEUR m":PRINT#1," en c
m -->";:LINE INPUT#1,"",lo1$
5080 lo1=VAL(lo1$):IF lo1=0 THEN LO >WF
CATE #1,1,1:PRINT#1,CHR$(7):GOTO 50
70
5090 RETURN                         >FH
5100 LOCATE #1,tab1,tab2:PRINT#1,"E >WB
NTREZ LA LONGUEUR m1";:PRINT#1," en
 cm -->";:LINE INPUT#1,"",lo2$
5110 lo2=VAL(lo2$):IF lo2=0 THEN LO >WW
CATE #1,1,1:PRINT#1,CHR$(7):GOTO 51
00
5120 RETURN                         >FB
5130 LOCATE #1,tab1,tab2:PRINT#1,"E >KP
NTREZ LE DIAMETRE d1":PRINT#1," en
cm -->";:LINE INPUT#1,"",D3$:D3=VAL
(D3$):IF D3=0 THEN LOCATE #1,1,1:PR
INT CHR$(7):GOTO 5130
5140 RETURN                         >FD
5150 LOCATE #1,tab1,tab2:PRINT#1,"E >KZ
NTREZ LE DIAMETRE d2":PRINT#1," en
cm -->";:LINE INPUT#1,"",D4$:D4=VAL
(D4$):IF D4=0 THEN LOCATE #1,1,1:PR
INT CHR$(7):GOTO 5150
5160 RETURN                         >FF
5170 LOCATE #1,tab1,tab2:PRINT#1,"E >CT
NTREZ LA HAUTEUR":PRINT#1,"  en  cm
 -->";:LINE INPUT#1,haut$:haut=VAL(
haut$):IF haut=0 THEN LOCATE #1,1,1
:PRINT#1,CHR$(7):GOTO 5170
5180 RETURN                         >FH
5190 LOCATE #1,tab1,tab2:PRINT#1,"E >LY
NTREZ LE RAYON r en":PRINT#1,"  cm
-->";:LINE INPUT#1,"",ra$
5200 ra=VAL(ra$):IF ra=0 THEN LOCAT >NW
E #1,1,1:PRINT CHR$(7):GOTO 5190
5210 RETURN                         >FB
5220 LOCATE #1,tab1,tab2:PRINT#1,"E >PR
NTREZ LE DIAMETRE D":PRINT#1," en c
m -->";:LINE INPUT#1,"",D1$
5230 D1=VAL(D1$):IF D1=0 THEN LOCAT >MD
E #1,1,1:PRINT CHR$(7):GOTO 5220
5240 RETURN                         >FE
5250 LOCATE #1,tab1,tab2:PRINT#1,"E >PF
NTREZ LE DIAMETRE d":PRINT#1," en c
m -->";:LINE INPUT#1,"",D2$
5260 D2=VAL(D2$):IF D2=0 THEN LOCAT >MN
E #1,1,1:PRINT CHR$(7):GOTO 5250
5270 RETURN                         >FH
5280 LOCATE #1,tab1,tab2:PRINT#1,"E >JF
NTREZ L'AIRE A2 en":PRINT#1,"  cm";
CHR$(255);" -->";:LINE INPUT#1,"",a
ir2$
5290 air2=VAL(air2$):IF air2=0 THEN >AU
 LOCATE #1,1,1:PRINT#1,CHR$(7):GOTO
 5280
5300 RETURN                         >FB
5310 LOCATE #1,tab1,tab2:PRINT#1,"E >RW
NTREZ LE SEGMENT s":PRINT#1,"  en c
m -->";:LINE INPUT#1,"",seg$
5320 seg=VAL(seg$):IF seg=0 THEN LO >TM
CATE #1,1,1:PRINT CHR$(7):GOTO 5310

5330 RETURN                         >FE
5340 LOCATE #1,tab1,tab2:PRINT#1,"E >JA
NTREZ L'AIRE A1 en":PRINT#1,"  cm";
CHR$(255);" -->";:LINE INPUT#1,"",a
ir1$
5350 air1=VAL(air1$):IF air1=0 THEN >AJ
 LOCATE #1,1,1:PRINT#1,CHR$(7):GOTO
 5340
5360 RETURN                         >FH
5370 LOCATE #1,tab1,tab2:PRINT#1,"E >HV
NTREZ LE VOLUME en":PRINT#1,"  cm";
CHR$(254);" -->";:LINE INPUT#1,"",v
ol$
5380 vol=VAL(vol$):IF vol=0 THEN LO >XZ
CATE #1,1,1:PRINT#1,CHR$(7):GOTO 53
70
5390 RETURN                         >GA
5400 '                              >YB
5410 ' dessin contour ecran         >YC
5420 '                              >YD
5430 MODE 2:ORIGIN 0,0:PLOT 0,0,13: >MP
DRAWR 639,0:DRAWR 0,399:DRAWR -639,
0:DRAWR 0,-399
5440 PLOT 3,3:DRAWR 633,0:DRAWR 0,3 >HF
93:DRAWR -633,0:DRAWR 0,-393
5450 PLOT 4,80:DRAWR 631,0:PLOTR 0, >TK
-3:DRAWR -631,0
5460 PLOT 165,3:DRAWR 0,74:PLOTR 3, >QA
0:DRAWR 0,-74
5470 PLOT 440,80:DRAWR 0,317:PLOTR  >VL
-3,0:DRAWR 0,-317
5480 PLOT 440,355:DRAWR 194,0:PLOTR >WX
 0,-3:DRAWR -194,0
5490 LOCATE 64,2:PRINT "FORMULES"   >CR
5500 WINDOW #1,2,23,2,19:PAPER #1,1 >RB
:PEN #1,0:CLS #1
5510 LOCATE #1,3,3:PRINT#1,"CHOISIS >UF
SEZ LA BONNE"
5520 LOCATE #1,3,5:PRINT#1,"FORMULE >RW
   AVEC   LA"
5530 LOCATE #1,3,7:PRINT#1,"BARRE D >UA
'ESPACEMENT."
5540 LOCATE #1,3,13:PRINT#1,"CECI F >UU
AIT , VALIDEZ"
5550 LOCATE #1,3,15:PRINT#1,"PAR EN >JU
TER ."
5560 WINDOW #2,57,79,5,19:PAPER #2, >UB
0:PEN #2,1:CLS #2
5570 WINDOW #4,23,79,22,24:PAPER #4 >UE
,0:PEN #4,1:CLS #4
5580 LOCATE 2,23:PRINT "COPY=RETOUR >ZD
 AU MENU":RETURN
5590 LOCATE #4,1,1:PRINT#4,"V:Vol.  >GW
 Am:surf.laterale  Ao:surf.tot.  h:
haut  r:rayon"
5600 LOCATE #4,1,3:PRINT#4,"e:DIAG. >FX
 d,D:DIAM. m:generatrice  s:corde a
:long. b:larg."
5610 RETURN                         >FF
5620 MODE 2:PRINT:PRINT " VALEUR EN >PZ
TREE ERRONEE ... UNE TOUCHE POUR RE
COMMENCER ...":CALL &BB03:CALL &BB0
6:PRINT CHR$(7):RUN
```

MUSICA

Hammaing CHIEV





Il n'existe pas encore de programme simple d'emploi et bon marché qui permette d'entrer rapidement une mélodie, de la sauver et même d'en tirer un programme BASIC. Cet oubli est réparé aujourd'hui avec MUSICA.

Ce programme utilisant les touches, les possesseurs de clavier AZERTY devront modifier les lignes suivantes dans le programme principal :
(attention : le symbol ° correspond à "[" et § à "]".

```
590 PEN 3:LOCATE 11.8:PRINT "  °)§" >KY
::PEN 1:PRINT " = Octave -1"
600 PEN 3:LOCATE 11,10:PRINT "  °-§ >LU
"::PEN 1:PRINT " = Octave +1"
610 PEN 3:LOCATE 11,12:PRINT "  °.§ >ZQ
"::PEN 1:PRINT " = Dur"+CHR$(92)+"e
  -1"
620 PEN 3:LOCATE 11,14:PRINT "  °/§ >ZT
"::PEN 1:PRINT " = Dur"+CHR$(92)+"e
  +1"
650 PEN 3:LOCATE 2.10:PRINT "°W§":: >VU
PEN 1:PRINT " ...permet d'enregistr
er les notes que      vous avez jou
"+CHR$(92)+"es avec leurs ENVs,
   ENTs. Dur"+CHR$(92)+"es et Volum
es.":PEN 2:PRINT "    Un grand E se
 dessine si l'enregis-     -trement
 a lieu"
840 PEN 3:LOCATE 2,10:PRINT "°?§":: >HM
PEN 1:PRINT " ...permet de quitter
sous BASIC ou CP/M"
1520 PEN 3:LOCATE 1,21:PRINT"W"::PE >GP
N 1:PRINT":ENREGISTRER"
1540 PEN 3:LOCATE 1,25:PRINT"?"::PE >ZL
N 1:PRINT":SORTIR"
2680 PEN 1:LOCATE 2.6:PRINT "Plus d >YA
e place, mec !";CHR$(7)::LOCATE 2,8
:PRINT "Appuye sur °W§":WHILE INKEY
(71)<>0:WEND:GOSUB 2690:en=0:GOSUB
2670:enri=0:GOTO 1610
2850 IF INKEY(67)=0 THEN PRINT " As >TB
cii":GOTO 2870
```

MUSICA

```
10 SYMBOL AFTER 47                        >MU
20 SYMBOL 48,126,66,70,74,82,98,126 >DK
,0
30 SYMBOL 49,24.8,8,8.8,8,8.0             >WR
40 SYMBOL 50,126,2.2,126,64,64.126, >BD
0
50 SYMBOL 51.126,2,2,30,2.2,126,0        >ZD
60 SYMBOL 52,66.66,66,126.2,2,2,0        >ZE
70 SYMBOL 53,126,64.64.126,2,2.126, >CB
0
80 SYMBOL 54.126.64.64.126,66,66,12 >DC
6.0
```



```
90 SYMBOL 55,126,2,2,2,2,2,2,0          >WU
100 SYMBOL 56,126,66,66,126,66,66,1 >EK
26,0
110 SYMBOL 57,126,66,66,126,2,2,126 >BZ

120 SYMBOL 59,32,16,120,12,124,204, >FQ
118,0
130 SYMBOL 64,24,36,102,102,102,102 >FF
,62,0
140 SYMBOL 65,40,108,198,198,238,19 >HD
8,198,0
150 SYMBOL 66,220,198,198,220,198,1 >JF
98,220,0
160 SYMBOL 67,108,198,192,192,192,1 >JP
98,108,0
170 SYMBOL 68,220,198,198,198,198,1 >JA
98,220,0
180 SYMBOL 69,222,192,216,192,192,1 >JW
92,222,0
190 SYMBOL 70,222,192,216,192,192,1 >JV
92,192,0
200 SYMBOL 71,108,198,192,204,198,1 >JD
98,108,0
210 SYMBOL 72,198,198,198,238,198,1 >JP
98,198,0
220 SYMBOL 73,126,24,24,24,24,24,12 >DX
6,0
230 SYMBOL 74,30,12,12,12,204,204,1 >EM
20,0
240 SYMBOL 75,198,204,216,208,216,2 >JX
04,198,0
250 SYMBOL 76,192,192,192,192,192,1 >JB
92,222,0
260 SYMBOL 77,198,108,186,214,198,1 >JF
98,198,0
270 SYMBOL 78,198,102,182,214,218,2 >JB
04,198,0
280 SYMBOL 79,108,198,198,198,198,1 >JQ
98,108,0
290 SYMBOL 80,220,198,198,220,192,1 >JC
92,192,0
300 SYMBOL 81,108,198,198,198,246,2 >JT
18,108,6
310 SYMBOL 82,220,198,198,220,204,1 >JZ
98,194,0
320 SYMBOL 83,108,192,108,6,198,198 >GW
,108,0
330 SYMBOL 84,126,24,24,24,24,24,24 >CN
,0
340 SYMBOL 85,198,198,198,198,198,1 >JU
98,108,0
350 SYMBOL 86,198,198,198,198,198,1 >HQ
08,40,0
360 SYMBOL 87,198,198,198,214,186,1 >JH
08,198,0
370 SYMBOL 88,198,108,40,40,108,198 >GF
,198,0
380 SYMBOL 89,198,198,198,100,48,56 >FE
,56,0
390 SYMBOL 90,251,6,12,24,48,96,223 >CE
,0
400 SYMBOL 92,8,16,60,102,126,96,60 >CV
,0
410 SYMBOL 96,16,8,60,102,126,96,60 >CA
,0
420 SYMBOL 95,24,36,60,102,126,96,6 >DK
0,0
430 INK 0,1:INK 1,26:INK 2,20:INK 3 >CB
,6
440 BORDER 0:PAPER 0:MODE 1         >VA
450 LOCATE 2,12:PRINT "INSTRUCTIONS >FE
 OUI ou NON (O/N) ? ";
460 IF UPPER$(INKEY$)="O" THEN PRIN >WJ
T "Oui":FOR i=1 TO 200:NEXT i:GOTO
490
470 IF UPPER$(INKEY$)="N" THEN PRIN >WJ
T "Non":FOR i=1 TO 200:NEXT i:GOTO
960
480 GOTO 460                        >ZJ
490 MODE 1:PEN 2:LOCATE 13,1:PRINT  >RY
"-------------"
500 LOCATE 12,2:PRINT "<";:PEN 1:PR >TZ
INT" M U S I C A ";:PEN 2:PRINT">"
510 LOCATE 13,3:PRINT "------------ >CP
-"
```




```
520 PEN 3:LOCATE 2,7:PRINT "MUSICA" >ZB
;:PEN 1:PRINT " est un synth"+CHR$(
92)+"tiseur  de 7 octaves qui   vou
s permet de cr"+CHR$(92)+"er des mo
rceaux          musicaux que vous pouv
ez ensuite les    utiliser dans vos
 propres programmes     (BASIC)."
530 PRINT:PRINT:PRINT " Vous jouere >MH
z avec les 2e et 3e rang"+CHR$(92)+
"es  du Clavier."
540 PRINT:PRINT " Les touches num"+ >VG
CHR$(92)+"riques du Clavier        s
ervent de choix de l'ENveloppe de
    Volume (";:PEN 2:PRINT " 0=sans
 ENV ";:PEN 1:PRINT ")."
550 PRINT:PRINT " M"+CHR$(95)+"mes  >CW
remarques pour les ENveloppes de  T
on mais en utilisant le pav"+CHR$(9
2)+" num"+CHR$(92)+"rique"
560 GOSUB 940                           >JD
570 CLS:PEN 3:LOCATE 11,4:PRINT "°C >TG
LR§";:PEN 1:PRINT " = Volume -1"
580 PEN 3:LOCATE 11,6:PRINT "°DEL§" >MR
;:PEN 1:PRINT " = Volume +1"
590 PEN 3:LOCATE 11,8:PRINT "  °-§" >KC
;:PEN 1:PRINT " = Octave -1"
600 PEN 3:LOCATE 11,10:PRINT "  °^§ >MN
";:PEN 1:PRINT " = Octave +1"
610 PEN 3:LOCATE 11,12:PRINT "  °<§ >ZF
";:PEN 1:PRINT " = Dur"+CHR$(92)+"e
 -1"
620 PEN 3:LOCATE 11,14:PRINT "  °>§ >FP
";:PEN 1:PRINT " = Dur"+CHR$(92)+"e
 +1":PEN 3:LOCATE 6,16:PRINT "  °E
SPACE§";:PEN 1:PRINT " = Blanc"
630 GOSUB 940                           >JB
640 CLS:PEN 2:LOCATE 15,2:PRINT "EN >QY
RIGISTRER"
650 PEN 3:LOCATE 2,10:PRINT "°Z§";: >VF
PEN 1:PRINT " ...permet d'enrigistr
er les notes que        vous avez jou
"+CHR$(92)+"es avec leurs ENVs.
   ENTs, Dur"+CHR$(92)+"es et Volum
es.":PEN 2:PRINT "    Un grand E se
 dessine si l'enrigis-       -trement
 a lieu"
660 GOSUB 940                           >JE
670 CLS:PEN 2:LOCATE 17,2:PRINT "EC >KV
OUTER"
680 PEN 3:LOCATE 2,10:PRINT "°B§";: >AU
PEN 1:PRINT " ...permet d'"+CHR$(92
)+"couter les notes que vous      av
ez enrigistr"+CHR$(92)+"es ou charg
"+CHR$(92)+"es."
690 GOSUB 940                           >JH
700 CLS:PEN 2:LOCATE 15,2:PRINT "IN >QB
ITIALISER"
710 PEN 3:LOCATE 2,10:PRINT "°X§";: >TR
PEN 1:PRINT " ...permet de recommen
cer a z"+CHR$(92)+"ro le         mo
rceau musical."
720 GOSUB 940                           >JB
730 CLS:PEN 2:LOCATE 17,2:PRINT "SA >JK
UVER"
740 PEN 3:LOCATE 2,7:PRINT "°V§";:P >ZF
EN 1:PRINT " ...permet de sauver le
s notes que vous      avez enrigistr
"+CHR$(92)+"es."
750 PRINT:PRINT"    Ces notes peuve >UL
nt "+CHR$(95)+"tre sauv"+CHR$(92)+"
es sous      2 formes :"
760 PEN 2:PRINT:PRINT" ASCII:";:PEN >JF
 1:PRINT " fichier (suivi de .MUS)
qui peut "+CHR$(95)+"tre   recharg"
+CHR$(92)+" et trait"+CHR$(92)+" pa
r MUSICA."
```



```
770 PEN 2:PRINT:PRINT" BASIC:";:PEN >AL
 1:PRINT " fichier intraitable par
MUSICA mais     peut "+CHR$(95)+"tr
e utilis"+CHR$(92)+" "+CHR$(59)+" p
artir du BASIC."
780 GOSUB 940                       >JH
790 CLS:PEN 2:LOCATE 17,2:PRINT "CH >KU
ARGER"
800 PEN 3:LOCATE 2,10:PRINT "°C§";: >FM
PEN 1:PRINT " ...permet de recharge
r les notes que       vous avez pr"
+CHR$(92)+"alablement sauv"+CHR$(92
)+"es."
810 PRINT:PRINT"    Vous pouvez, ap >ZB
r"+CHR$(96)+"s le chargement,
 d'ajouter d'autres notes et de les
       sauver.
820 GOSUB 940                       >JC
830 CLS:PEN 2:LOCATE 17,2:PRINT "SO >JA
RTIR"
840 PEN 3:LOCATE 2,10:PRINT "°M§";: >HC
PEN 1:PRINT " ...permet de quitter
sous BASIC ou CP/M"
850 GOSUB 940                       >JF
860 CLS:PEN 2:LOCATE 13,1:PRINT "-- >NJ
-----------"
870 LOCATE 12,2:PRINT "<";:PEN 1:PR >TK
INT" M U S I C A ";:PEN 2:PRINT">"
880 LOCATE 13,3:PRINT "------------ >CA
-"
890 PEN 1:LOCATE 2,7:PRINT " Voil"+ >MJ
CHR$(59)+" ! c'est tout. J'esp"+CHR
$(96)+"re que vous    avez tout not"
+CHR$(92)+"."
900 PEN 3:PRINT:PRINT " NOTA:";:PEN >BN
 1:PRINT " Vous pouvez modifier les
 ENVs et ENTs    du programme :":PEN
 2:PRINT:PRINT "   Lignes 960 "+CHR
$(59)+" 1130 et 3070 "+CHR$(59)+" 3
240"
910 PEN 1:PRINT:PRINT " Et le nombr >ZE
e de notes utilisables :":PEN 2:PRI
NT:PRINT "   Ligne 1580 ( mais atte
ntion "+CHR$(59)+" la        m"+CHR
$(92)+"moire de votre AMSTRAD ! )";

920 PEN 3:LOCATE 2,23:PRINT "...<ES >TK
PACE> POUR DEMARRER MUSICA !..."
930 IF INKEY$<>" " THEN 930 ELSE GO >FJ
TO 960
940 LOCATE 21,25:PEN 3:PRINT "BARRE >UJ
 D'ESPACE --->"
950 IF INKEY$=" " THEN RETURN ELSE  >KZ
GOTO 950
960 ENV 1,10,-15,0.5,3,5,12,15,-1,1 >AK
0
970 ENV 2,15,1,1,15,10,15,1,-1,12   >YJ
980 ENV 3,20,15,1,5,-10,40,5,13,15  >ZA
990 ENV 4,10,2,15,10,-1,2,30,3,5    >XG
1000 ENV 5,10,1,5,15,-1,1           >QG
1010 ENV 6,15,3,1,1,-1,15           >RD
1020 ENV 7,5,-30,1,15,-10,20,5,1,10 >ZP

1030 ENV 8,1,3,15,13,-1,15          >RR
1040 ENV 9,15,35,1.5,8,-10,5,1,5,1  >ZX
1050 ENT 1,2,-15,0.5,5,-15,10,1,-1, >AU
5
1060 ENT 2,15,-20,15,5,-15,10       >VK
1070 ENT 3,1,3,10,15,1,1,50,-1,30   >YT
1080 ENT 4,10,-2,15,10,-1,5         >TE
1090 ENT 5,1,15,1,1,15,10,6,-5,1    >XZ
1100 ENT 6,1,12,1,15,-10,1          >RB
1110 ENT 7,1,30,1,50,5,10,5,-15,20  >ZE
1120 ENT 8,30,-1,8,13,4,5,10,-1,1   >YX
1130 ENT 9,1,-50,1,15,1,15,20,-15,5 >ZA

1140 INK 0,1:INK 1,26:INK 2,0:INK 3 >VA
,6:BORDER 0:MODE 1
1150 PLOT 0,336,1:DRAW 639,336:PLOT >CH
 0,256:DRAW 639,256:PLOT 480,399:DR
AW 480,0
1160 PLOT 0,344:DRAW 280,344:DRAW 2 >EG
80,399:PLOT 288,399:DRAW 288,336:DR
AW 280,344
1170 PLOT 296,399:DRAW 296,344:DRAW >WB
 344,344:DRAW 344,399:PLOT 296,344:
DRAW 288,336:PLOT 344,344:DRAW 352,
336:DRAW 352,399
1180 PLOT 360,399:DRAW 360,344:DRAW >YX
 472,344:DRAW 472,399:PLOT 360,344:
DRAW 352,336:PLOT 472,344:DRAW 480,
336
1190 PLOT 488,399:DRAW 488,344:DRAW >QC
 639,344:PLOT 488,344:DRAW 480,336
1200 PLOT 639,328:DRAW 488,328:DRAW >ZB
 488,264:DRAW 639,264:PLOT 488,328:
DRAW 480,336:PLOT 488,264:DRAW 480,
256
1210 PLOT 0,248:DRAW 480,248:PLOT 0 >WD
,104:DRAW 480,104:PLOT 0,96:DRAW 48
0,96
1220 PLOT 0,88:DRAW 216,88:DRAW 216 >VX
,0:PLOT 232,0:DRAW 232,88:DRAW 472,
88:DRAW 472,0:PLOT 216,88:DRAW 224,
96:DRAW 224,0:PLOT 224,96:DRAW 232,
88:PLOT 472,88:DRAW 480,96:PLOT 232
,56:DRAW 472,56
1230 PLOT 639,248:DRAW 488,248:DRAW >WF
 488,216:DRAW 639,216:PLOT 488,248:
DRAW 480,256:PLOT 488,216:DRAW 480,
208:DRAW 639,208
1240 PLOT 639,200:DRAW 488,200:DRAW >MW
 488,0:PLOT 488,200:DRAW 480,208
1250 FOR t=0 TO 480:PLOT x,104,1:DR >CL
AW x,248,1:x=x+1:NEXT t
1260 x=30:FOR t=1 TO 12:PLOT x,104, >JQ
2:DRAW x,248,2:x=x+40:NEXT t
1270 x=20:GOSUB 1280:x=60:GOSUB 128 >UX
0:x=140:GOSUB 1280:x=180:GOSUB 1280
:x=220:GOSUB 1280:x=300:GOSUB 1280:
x=340:GOSUB 1280:x=420:GOSUB 1280:x
=460:GOSUB 1280:GOTO 1290
1280 FOR i=1 TO 20:PLOT x,160,2:DRA >LC
W x,248,2:x=x+1:NEXT i:RETURN
1290 y=152:yy=192:x=512:GOSUB 1440: >RC
x=524:GOSUB 1440:x=572:GOSUB 1440:x
=600:GOSUB 1440
1300 y=160:x=532:GOSUB 1440:x=544:G >MH
OSUB 1440
1310 yy=184:x=580:GOSUB 1440        >WJ
1320 yy=168:x=552:GOSUB 1440:x=544: >GT
GOSUB 1440:x=564:GOSUB 1440:x=592:G
OSUB 1440
1330 y=176:yy=184:x=552:GOSUB 1440: >RY
x=544:GOSUB 1440:x=564:GOSUB 1440:x
=592:GOSUB 1440
1340 x=500:GOSUB 1480:x=512:GOSUB 1 >FP
480
1350 FOR i=0 TO 3:PLOT 564+i,168:DR >KE
AW 552+i,176:PLOT 620+i,152:DRAW 60
0+i,192:NEXT i
1360 y=152:x=536:GOSUB 1470:x=556:G >HJ
OSUB 1470:x=584:GOSUB 1470
1370 y=184:x=564:GOSUB 1470:x=592:G >MM
OSUB 1470
1380 y=152:x=540:GOSUB 1460:x=560:G >HB
OSUB 1460:x=588:GOSUB 1460
1390 y=184:x=552:GOSUB 1460:x=580:G >MF
OSUB 1460
1400 y=152:x=536:GOSUB 1450:x=556:G >GF
OSUB 1450:x=584:GOSUB 1450
1410 y=188:x=556:GOSUB 1450:x=584:G >MJ
OSUB 1450
1420 y=166:x=604:GOSUB 1450         >VR
1430 GOTO 1490                      >MK
1440 FOR i=1 TO 4:PLOT x,y,1:DRAW x >FE
,yy:x=x+1:NEXT i:RETURN
1450 FOR i=1 TO 8:PLOT x,y:DRAW x,y >DY
+4:x=x+1:NEXT i:RETURN
1460 FOR i=1 TO 4:PLOT x,y:DRAW x+4 >GB
,y+8:x=x+1:NEXT i:RETURN
1470 FOR i=1 TO 4:PLOT x,y:DRAW x-4 >GE
,y+8:x=x+1:NEXT i:RETURN
1480 FOR i=1 TO 4:PLOT x,152:DRAW x >JP
+12,192:x=x+1:NEXT i:RETURN
1490 PEN 3:LOCATE 32,6:PRINT"C";:PE >AA
N 1:PRINT":CHARGER"
1500 PEN 3:LOCATE 32,8:PRINT"V";:PE >ZY
N 1:PRINT":SAUVER"
1510 PEN 3:LOCATE 32,11:PRINT"B";:P >BU
EN 1:PRINT":ECOUTER"
```

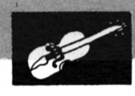


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1520 PEN 3:LOCATE 1,21:PRINT"Z";:PE >GX
N 1:PRINT":ENRIGISTRER"
1530 PEN 3:LOCATE 1,23:PRINT"X";:PE >GE
N 1:PRINT":INITIALISER"
1540 PEN 3:LOCATE 1,25:PRINT"M";:PE >ZB
N 1:PRINT":SORTIR"
1550 LOCATE 16,23:PRINT"NOTE":LOCAT >GW
E 16,24:PRINT"ACTUELLE"
1560 PEN 1:LOCATE 35,17:PRINT "PAR" >CF
;:LOCATE 32,19:PRINT "CHIEU";:LOCAT
E 32,20:PRINT "HANMAING";:LOCATE 32
,22:PRINT "COPYRIGHT";:LOCATE 32,24
:PRINT CHR$(164)+" 03/1988";
1570 GOSUB 1580:GOTO 1610          >TJ
1580 notej=0:notel=500:DIM note$(no >TL
tel),duree(notel),volu(notel),envo(
notel),ento(notel):envo=0:ento=0:oc
ta=5:volu=10:duree=20:enri=0
1590 LOCATE 1,1:PEN 3:PRINT " 0";:P >QZ
EN 1:PRINT "   NOTES JOUEES";:LOCAT
E 1,3:PEN 3:PRINT notel;:PEN 1:PRIN
T "NOTES LIBRES";:LOCATE 24,1:PRINT
 "V:";:PEN 3:PRINT " 0";
1600 LOCATE 24,3:PEN 1:PRINT "T:";: >JT
PEN 3:PRINT " 0";:LOCATE 32,1:PEN 1
:PRINT "OCT:";:PEN 3:PRINT " 3";:LO
CATE 32,3:PEN 1:PRINT "VOL:";:PEN 3
:PRINT " 8";:LOCATE 16,21:PEN 1:PRI
NT "DUREE:";:PEN 3:PRINT " 20";:RET
URN
1610 PEN 3                         >FK
1620 IF INKEY(69)=0 THEN GOSUB 2170 >EJ
:IF enri=1 THEN GOSUB 2640
1630 IF INKEY(47)=0 THEN GOSUB 2590 >EM
:IF enri=1 THEN GOSUB 2640
1640 IF INKEY(59)=0 THEN GOSUB 2190 >EM
:IF enri=1 THEN GOSUB 2640
1650 IF INKEY(60)=0 THEN GOSUB 2210 >EX
:IF enri=1 THEN GOSUB 2640
1660 IF INKEY(58)=0 THEN GOSUB 2230 >EH
:IF enri=1 THEN GOSUB 2640
1670 IF INKEY(61)=0 THEN GOSUB 2250 >EE
:IF enri=1 THEN GOSUB 2640
1680 IF INKEY(53)=0 THEN GOSUB 2270 >EJ
:IF enri=1 THEN GOSUB 2640
1690 IF INKEY(51)=0 THEN GOSUB 2290 >EK
:IF enri=1 THEN GOSUB 2640
1700 IF INKEY(52)=0 THEN GOSUB 2310 >EV
:IF enri=1 THEN GOSUB 2640
1710 IF INKEY(43)=0 THEN GOSUB 2330 >EY
:IF enri=1 THEN GOSUB 2640
1720 IF INKEY(44)=0 THEN GOSUB 2350 >EC
:IF enri=1 THEN GOSUB 2640
1730 IF INKEY(42)=0 THEN GOSUB 2370 >ED
:IF enri=1 THEN GOSUB 2640
1740 IF INKEY(45)=0 THEN GOSUB 2390 >EK
:IF enri=1 THEN GOSUB 2640
1750 IF INKEY(37)=0 THEN GOSUB 2410 >EE
:IF enri=1 THEN GOSUB 2640
1760 IF INKEY(34)=0 THEN GOSUB 2430 >EE
:IF enri=1 THEN GOSUB 2640
1770 IF INKEY(36)=0 THEN GOSUB 2450 >EK
:IF enri=1 THEN GOSUB 2640
1780 IF INKEY(27)=0 THEN GOSUB 2470 >EN
:IF enri=1 THEN GOSUB 2640
1790 IF INKEY(29)=0 THEN GOSUB 2490 >EU
:IF enri=1 THEN GOSUB 2640
1800 IF INKEY(28)=0 THEN GOSUB 2510 >EB
:IF enri=1 THEN GOSUB 2640
1810 IF INKEY(26)=0 THEN GOSUB 2530 >EC
:IF enri=1 THEN GOSUB 2640
1820 IF INKEY(19)=0 THEN GOSUB 2550 >EH
:IF enri=1 THEN GOSUB 2640
1830 IF INKEY(17)=0 THEN GOSUB 2570 >EJ
:IF enri=1 THEN GOSUB 2640
1840 IF INKEY(64)=0 THEN envo=1:LOC >HA
ATE 26,1:PEN 3:PRINT envo;
1850 IF INKEY(65)=0 THEN envo=2:LOC >HD
ATE 26,1:PEN 3:PRINT envo;
1860 IF INKEY(57)=0 THEN envo=3:LOC >HG
ATE 26,1:PEN 3:PRINT envo;
1870 IF INKEY(56)=0 THEN envo=4:LOC >HH
ATE 26,1:PEN 3:PRINT envo;
1880 IF INKEY(49)=0 THEN envo=5:LOC >HM
ATE 26,1:PEN 3:PRINT envo;
1890 IF INKEY(48)=0 THEN envo=6:LOC >HN
ATE 26,1:PEN 3:PRINT envo;
1900 IF INKEY(41)=0 THEN envo=7:LOC >GG
ATE 26,1:PEN 3:PRINT envo;
1910 IF INKEY(40)=0 THEN envo=8:LOC >GH
ATE 26,1:PEN 3:PRINT envo;
1920 IF INKEY(33)=0 THEN envo=9:LOC >HD
ATE 26,1:PEN 3:PRINT envo;
1930 IF INKEY(32)=0 THEN envo=0:LOC >GC
ATE 26,1:PEN 3:PRINT envo;
1940 IF INKEY(13)=0 THEN ento=1:LOC >GB
ATE 26,3:PEN 3:PRINT ento;
1950 IF INKEY(14)=0 THEN ento=2:LOC >GE
ATE 26,3:PEN 3:PRINT ento;
1960 IF INKEY(5)=0 THEN ento=3:LOCA >FC
TE 26,3:PEN 3:PRINT ento;
1970 IF INKEY(20)=0 THEN ento=4:LOC >GF
ATE 26,3:PEN 3:PRINT ento;
1980 IF INKEY(12)=0 THEN ento=5:LOC >HA
ATE 26,3:PEN 3:PRINT ento;
1990 IF INKEY(4)=0 THEN ento=6:LOCA >FH
TE 26,3:PEN 3:PRINT ento;
2000 IF INKEY(10)=0 THEN ento=7:LOC >GR
ATE 26,3:PEN 3:PRINT ento;
2010 IF INKEY(11)=0 THEN ento=8:LOC >GV
ATE 26,3:PEN 3:PRINT ento;
2020 IF INKEY(3)=0 THEN ento=9:LOCA >FU
TE 26,3:PEN 3:PRINT ento;
2030 IF INKEY(15)=0 THEN ento=0:LOC >GT
ATE 26,3:PEN 3:PRINT ento;
2040 IF INKEY(24)=0 THEN octa=octa+ >VP
1:IF octa>6 THEN octa=6 ELSE LOCATE
 36,1:PRINT octa-2;
2050 IF INKEY(25)=0 THEN octa=octa- >VD
1:IF octa<0 THEN octa=0 ELSE LOCATE
 36,1:PRINT octa-2;
2060 IF INKEY(79)=0 THEN volu=volu+ >ZD
1:IF volu>15 THEN volu=15 ELSE LOCA
TE 36,3:PRINT volu-2;
2070 IF INKEY(16)=0 THEN volu=volu- >XQ
1:IF volu<3 THEN volu=3 ELSE LOCATE
 36,3:PRINT volu-2;
2080 IF INKEY(31)=0 THEN duree=dure >HU
e+1:IF duree>100 THEN duree=100 ELS
E LOCATE 22,21:PRINT duree;
2090 IF INKEY(39)=0 THEN duree=dure >CV
e-1:IF duree<1 THEN duree=1 ELSE LO
CATE 22,21:PRINT duree;
2100 IF INKEY(71)=0 THEN enri=enri+ >EA
1:IF enri=2 OR notej=notel THEN enr
i=0:en=0:GOSUB 2670 ELSE en=3:GOSUB
 2670
2110 IF INKEY(54)=0 THEN GOSUB 2700 >BB

2120 IF INKEY(63)=0 THEN ERASE note >QY
$,duree,volu,envo,ento:en=0:GOSUB 2
670:GOTO 1570
2130 IF INKEY(55)=0 THEN GOSUB 2770 >BM

2140 IF INKEY(62)=0 THEN GOSUB 3350 >BF

2150 IF INKEY(38)=0 THEN PEN 3:LOCA >EC
TE 2,6:PRINT "SORTIR";:GOSUB 3310:G
OTO 3540
2160 GOTO 1610                      >ME
2170 IF octa=0 THEN son$="3822" ELS >AR
E IF octa=1 THEN son$="1911" ELSE I
F octa=2 THEN son$="956 " ELSE IF o
cta=3 THEN son$="478 " ELSE IF octa
=4 THEN son$="239 " ELSE IF octa=5
THEN son$="119 " ELSE son$="60  "
2180 GOSUB 2600:GOSUB 2630:LOCATE 2 >GY
5,23:PRINT "DO  ";:RETURN
2190 IF octa=0 THEN son$="3608" ELS >AW
E IF octa=1 THEN son$="1804" ELSE I
F octa=2 THEN son$="902 " ELSE IF o
cta=3 THEN son$="451 " ELSE IF octa
=4 THEN son$="225 " ELSE IF octa=5
THEN son$="113 " ELSE son$="56  "
2200 GOSUB 2600:GOSUB 2630:LOCATE 2 >GU
5,23:PRINT "DO# ";:RETURN
2210 IF octa=0 THEN son$="3405" ELS >AG
E IF octa=1 THEN son$="1703" ELSE I
F octa=2 THEN son$="851 " ELSE IF o
cta=3 THEN son$="426 " ELSE IF octa
=4 THEN son$="213 " ELSE IF octa=5
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THEN son$="106 " ELSE son$="53  "
2220 GOSUB 2600:GOSUB 2630:LOCATE 2 >GX
5,23:PRINT "RE  ";:RETURN
2230 IF octa=0 THEN son$="3214" ELS >ZX
E IF octa=1 THEN son$="1607" ELSE I
F octa=2 THEN son$="804 " ELSE IF o
cta=3 THEN son$="402 " ELSE IF octa
=4 THEN son$="201 " ELSE IF octa=5
THEN son$="100 " ELSE son$="50  "
2240 GOSUB 2600:GOSUB 2630:LOCATE 2 >GV
5,23:PRINT "MIb ";:RETURN
2250 IF octa=0 THEN son$="3034" ELS >AZ
E IF octa=1 THEN son$="1517" ELSE I
F octa=2 THEN son$="758 " ELSE IF o
cta=3 THEN son$="379 " ELSE IF octa
=4 THEN son$="190 " ELSE IF octa=5
THEN son$="95  " ELSE son$="47  "
2260 GOSUB 2600:GOSUB 2630:LOCATE 2 >GA
5,23:PRINT "MI  ";:RETURN
2270 IF octa=0 THEN son$="2863" ELS >AF
E IF octa=1 THEN son$="1432" ELSE I
F octa=2 THEN son$="716 " ELSE IF o
cta=3 THEN son$="358 " ELSE IF octa
=4 THEN son$="179 " ELSE IF octa=5
THEN son$="89  " ELSE son$="45  "
2280 GOSUB 2600:GOSUB 2630:LOCATE 2 >GL
5,23:PRINT "FA  ";:RETURN
2290 IF octa=0 THEN son$="2703" ELS >AU
E IF octa=1 THEN son$="1351" ELSE I
F octa=2 THEN son$="676 " ELSE IF o
cta=3 THEN son$="338 " ELSE IF octa
=4 THEN son$="169 " ELSE IF octa=5
THEN son$="84  " ELSE son$="42  "
2300 GOSUB 2600:GOSUB 2630:LOCATE 2 >GG
5,23:PRINT "FA# ";:RETURN
2310 IF octa=0 THEN son$="2551" ELS >AH
E IF octa=1 THEN son$="1276" ELSE I
F octa=2 THEN son$="638 " ELSE IF o
cta=3 THEN son$="319 " ELSE IF octa
=4 THEN son$="159 " ELSE IF octa=5
THEN son$="80  " ELSE son$="40  "
2320 GOSUB 2600:GOSUB 2630:LOCATE 2 >GH
5,23:PRINT "SOL ";:RETURN
2330 IF octa=0 THEN son$="2408" ELS >ZT
E IF octa=1 THEN son$="1204" ELSE I
F octa=2 THEN son$="602 " ELSE IF o
cta=3 THEN son$="301 " ELSE IF octa
=4 THEN son$="150 " ELSE IF octa=5
THEN son$="75  " ELSE son$="38  "
2340 GOSUB 2600:GOSUB 2630:LOCATE 2 >GN
5,23:PRINT "SOL#";:RETURN
2350 IF octa=0 THEN son$="2273" ELS >AH
E IF octa=1 THEN son$="1136" ELSE I
F octa=2 THEN son$="568 " ELSE IF o
cta=3 THEN son$="284 " ELSE IF octa
=4 THEN son$="142 " ELSE IF octa=5
THEN son$="71  " ELSE son$="36  "
2360 GOSUB 2600:GOSUB 2630:LOCATE 2 >GR
5,23:PRINT "LA  ";:RETURN
2370 IF octa=0 THEN son$="2145" ELS >AJ
E IF octa=1 THEN son$="1073" ELSE I
F octa=2 THEN son$="536 " ELSE IF o
cta=3 THEN son$="268 " ELSE IF octa
=4 THEN son$="134 " ELSE IF octa=5
THEN son$="67  " ELSE son$="34  "
2380 GOSUB 2600:GOSUB 2630:LOCATE 2 >GG
5,23:PRINT "SIb ";:RETURN
2390 IF octa=0 THEN son$="2025" ELS >ZV
E IF octa=1 THEN son$="1012" ELSE I
F octa=2 THEN son$="506 " ELSE IF o
cta=3 THEN son$="253 " ELSE IF octa
=4 THEN son$="127 " ELSE IF octa=5
THEN son$="63  " ELSE son$="32  "
2400 GOSUB 2600:GOSUB 2630:LOCATE 2 >GC
5,23:PRINT "SI  ";:RETURN
2410 IF octa=0 THEN son$="1911" ELS >ZZ
E IF octa=1 THEN son$="956 " ELSE I
F octa=2 THEN son$="478 " ELSE IF o
cta=3 THEN son$="239 " ELSE IF octa
=4 THEN son$="119 " ELSE IF octa=5
THEN son$="60  " ELSE son$="30  "
2420 GOSUB 2600:GOSUB 2630:LOCATE 2 >GV
5,23:PRINT "DO  ";:RETURN
2430 IF octa=0 THEN son$="1804" ELS >ZJ
E IF octa=1 THEN son$="902 " ELSE I
F octa=2 THEN son$="451 " ELSE IF o
cta=3 THEN son$="225 " ELSE IF octa
=4 THEN son$="113 " ELSE IF octa=5
THEN son$="56  " ELSE son$="28  "
2440 GOSUB 2600:GOSUB 2630:LOCATE 2 >GA
5,23:PRINT "DO# ";:RETURN
2450 IF octa=0 THEN son$="1703" ELS >ZJ
E IF octa=1 THEN son$="851 " ELSE I
F octa=2 THEN son$="426 " ELSE IF o
cta=3 THEN son$="213 " ELSE IF octa
=4 THEN son$="106 " ELSE IF octa=5
THEN son$="53  " ELSE son$="27  "
2460 GOSUB 2600:GOSUB 2630:LOCATE 2 >GD
5,23:PRINT "RE  ";:RETURN
2470 IF octa=0 THEN son$="1607" ELS >ZQ
E IF octa=1 THEN son$="804 " ELSE I
F octa=2 THEN son$="402 " ELSE IF o
cta=3 THEN son$="201 " ELSE IF octa
=4 THEN son$="100 " ELSE IF octa=5
THEN son$="50  " ELSE son$="25  "
2480 GOSUB 2600:GOSUB 2630:LOCATE 2 >GB
5,23:PRINT "MIb ";:RETURN
2490 IF octa=0 THEN son$="1517" ELS >ZA
E IF octa=1 THEN son$="758 " ELSE I
F octa=2 THEN son$="379 " ELSE IF o
cta=3 THEN son$="190 " ELSE IF octa
=4 THEN son$="95  " ELSE IF octa=5
THEN son$="47  " ELSE son$="24  "
2500 GOSUB 2600:GOSUB 2630:LOCATE 2 >GX
5,23:PRINT "MI  ";:RETURN
2510 IF octa=0 THEN son$="1432" ELS >ZK
E IF octa=1 THEN son$="716 " ELSE I
F octa=2 THEN son$="358 " ELSE IF o
cta=3 THEN son$="179 " ELSE IF octa
=4 THEN son$="89  " ELSE IF octa=5
THEN son$="45  " ELSE son$="22  "
2520 GOSUB 2600:GOSUB 2630:LOCATE 2 >GH
5,23:PRINT "FA  ";:RETURN
2530 IF octa=0 THEN son$="1351" ELS >ZC
E IF octa=1 THEN son$="638 " ELSE I
F octa=2 THEN son$="338 " ELSE IF o
cta=3 THEN son$="169 " ELSE IF octa
=4 THEN son$="84  " ELSE IF octa=5
THEN son$="42  " ELSE son$="21  "
2540 GOSUB 2600:GOSUB 2630:LOCATE 2 >GN
5,23:PRINT "FA# ";:RETURN
2550 IF octa=0 THEN son$="1276" ELS >ZR
E IF octa=1 THEN son$="602 " ELSE I
F octa=2 THEN son$="319 " ELSE IF o
cta=3 THEN son$="159 " ELSE IF octa
=4 THEN son$="80  " ELSE IF octa=5
THEN son$="40  " ELSE son$="20  "
2560 GOSUB 2600:GOSUB 2630:LOCATE 2 >GP
5,23:PRINT "SOL ";:RETURN
2570 IF octa=0 THEN son$="1204" ELS >ZX
E IF octa=1 THEN son$="568 " ELSE I
F octa=2 THEN son$="301 " ELSE IF o
cta=3 THEN son$="150 " ELSE IF octa
=4 THEN son$="75  " ELSE IF octa=5
THEN son$="38  " ELSE son$="19  "
2580 GOSUB 2600:GOSUB 2630:LOCATE 2 >GV
5,23:PRINT "SOL#";:RETURN
2590 son$="0   ":GOSUB 2600:GOSUB 2 >XM
630:LOCATE 25,23:PRINT "BLAN";:RETU
RN
2600 son=VAL(son$)                  >NF
2610 IF son=0 THEN SOUND 4,0,duree, >ND
0,envo,ento:SOUND 1,0,duree,0,envo,
ento:SOUND 2,0,duree,0,envo,ento:RE
TURN
2620 SOUND 4,son,duree,volu,envo,en >KR
to:SOUND 1,son-1,duree,volu-2,envo,
ento:SOUND 2,son+1,duree,volu-1,env
o,ento:RETURN
2630 LOCATE 25,24:PRINT son$;:RETUR >FZ
N
2640 notej=notej+1:IF notej=notel+1 >PB
 THEN notej=notej-1:GOTO 2680
2650 note$(notej)=son$:duree(notej) >QE
=duree:volu(notej)=volu:envo(notej)
=envo:ento(notej)=ento
2660 LOCATE 1,1:PRINT notej;:LOCATE >TW
 1,3:PRINT notel-notej;:RETURN
2670 PLOT 304,392,en:DRAW 336,392:D >JR
RAW 336,380:DRAW 332,388:DRAW 312,3
88:DRAW 312,374:DRAW 328,372:DRAW 3
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12,370:DRAW 312,356:DRAW 332,356:DR
AW 336,364:DRAW 336,352:DRAW 304,35
2:DRAW 308,356:DRAW 308,388:DRAW 30
4,392:RETURN
2680 PEN 1:LOCATE 2,6:PRINT "Plus d >YD
e place, mec !";CHR$(7);:LOCATE 2,8
:PRINT "Appuye sur 'Z§":WHILE INKEY
(71)<>0:WEND:GOSUB 2690:en=0:GOSUB
2670:enri=0:GOTO 1610
2690 FOR t=6 TO 8:LOCATE 2,t:PRINT  >FA
SPACE$(29):NEXT t:RETURN
2700 IF notej=0 THEN PEN 1:LOCATE 2 >KL
,6:PRINT "J'peux pas !";:LOCATE 2,8
:PRINT "Aucune note en m"+CHR$(92)+
"moire !";:FOR t=1 TO 2000:NEXT t:G
OSUB 2690:GOTO 1610
2710 LOCATE 2,6:PRINT "ECOUTER";:GO >ZU
SUB 3310:GOSUB 2690
2720 PEN 1:LOCATE 2,6:PRINT "Attent >JH
ion les oreilles !";
2730 FOR t=1 TO notej               >PV
2740 son$=note$(t):duree=duree(t):v >FJ
olu=volu(t):envo=envo(t):ento=ento(
t)
2750 GOSUB 2600:NEXT t:GOSUB 2690   >AF
2760 RETURN                         >FJ
2770 IF notej=0 THEN PEN 1:LOCATE 2 >GD
,6:PRINT "J'peux pas !";:LOCATE 2,8
:PRINT "Aucune note en m"+CHR$(92)+
"moire !";:FOR x=1 TO 2000:NEXT x:G
OSUB 2690:RETURN
2780 LOCATE 2,6:PRINT "SAUVER";:GOS >YA
UB 3310:GOSUB 2690
2790 PEN 1:LOCATE 2,6:PRINT "Nom du >RV
 fichier:";:LOCATE 2,7:PRINT "(8 ca
r. maxi.)";
2800 LOCATE 2,8:INPUT "",nom$       >XF
2810 IF nom$="" THEN GOSUB 2690:RET >FX
URN
2820 IF LEN(nom$)>8 THEN PRINT CHR$ >ET
(7);:GOSUB 2690:GOTO 2790
2830 GOSUB 2690:PEN 1:LOCATE 2,6:PR >MG
INT "ASCII ou BASIC ? (A/B)";
2840 IF INKEY(54)=0 THEN PRINT " Ba >TY
sic":GOTO 3000
2850 IF INKEY(69)=0 THEN PRINT " As >TD
cii":GOTO 2870
2860 GOTO 2840                      >NH
2870 LOCATE 2,6:PRINT "Sauvegarde e >YZ
n cours...";
2880 nom$=nom$+".MUS"               >QT
2890 OPENOUT "!"+nom$               >PA
2900 PRINT #9,notej                 >NC
2910 FOR t=1 TO notej               >PV
2920 PRINT #9,note$(t)              >QU
2930 PRINT #9,duree(t)              >RQ
2940 PRINT #9,volu(t)               >QA
2950 PRINT #9,envo(t)               >QL
2960 PRINT #9,ento(t)               >QK
2970 NEXT t                         >XE
2980 CLOSEOUT                       >ZK
2990 LOCATE 2,8:PRINT "OK !";:FOR t >VD
=1 TO 1000:NEXT t:GOSUB 2690:GOTO 1
610
3000 LOCATE 2,6:PRINT "Sauvegarde e >YJ
n cours...";
3010 nom$=nom$+".BAS"               >PC
3020 OPENOUT "!"+nom$               >PK
3030 FOR t=1 TO notej               >PN
3040 PRINT #9,t*10;"DATA";VAL(note$ >YX
(t));",";duree(t);",";volu(t);",";e
nvo(t);",";ento(t)
3050 NEXT t                         >WE
3060 l=notej*10+10                  >MY
3070 PRINT #9,l;"ENV 1,10,-15,0.5,3 >QC
,5,12,15,-1,10"
3080 PRINT #9,l+10;"ENV 2,15,1,1,15 >QA
,10,15,1,-1,12"
3090 PRINT #9,l+20;"ENV 3,20,15,1,5 >TC
,-10,40,5,13,15"
3100 PRINT #9,l+30;"ENV 4,10,2,15,1 >PX
0,-1,2,30,3,5"
3110 PRINT #9,l+40;"ENV 5,10,1,5,15 >GB
,-1,1"
3120 PRINT #9,l+50;"ENV 6,15,3,1,1, >GH
-1,15"
3130 PRINT #9,l+60;"ENV 7,5,-30,1,1 >RB
5,-10,20,5,1,10"
3140 PRINT #9,l+70;"ENV 8,1,3,15,13 >HG
,-1,15"
3150 PRINT #9,l+80;"ENV 9,15,35,1.5 >RU
,8,-10,5,1,5,1"
3160 PRINT #9,l+90;"ENT 1,2,-15,0.5 >TB
,5,-15,10,1,-1,5"
3170 PRINT #9,l+100;"ENT 2,15,-20,1 >MP
5,5,-15,10"
3180 PRINT #9,l+110;"ENT 3,1,3,10,1 >QX
5,1,1,50,-1,30"
3190 PRINT #9,l+120;"ENT 4,10,-2,15 >KZ
,10,-1,5"
3200 PRINT #9,l+130;"ENT 5,1,15,1,1 >PC
,15,10,6,-5,1"
3210 PRINT #9,l+140;"ENT 6,1,12,1,1 >JE
5,-10,1"
3220 PRINT #9,l+150;"ENT 7,1,30,1,5 >RG
0,5,10,5,-15,20"
3230 PRINT #9,l+160;"ENT 8,30,-1,8, >QG
13,4,5,10,-1,1"
3240 PRINT #9,l+170;"ENT 9,1,-50,1, >UF
15,1,15,20,-15,5"
3250 PRINT #9,l+180;"FOR t=1 TO";no >GU
tej
3260 PRINT #9,l+190;"READ note,dure >GB
e,volu,envo,ento"
3270 PRINT #9,l+200;"SOUND 4,note,d >JZ
uree,volu,envo,ento:SOUND 1,note-1,
duree,volu-2,envo,ento:SOUND 2,note
+1,duree,volu-1,envo,ento"
3280 PRINT #9,l+210;"NEXT t"        >WW
3290 CLOSEOUT                       >ZE
3300 LOCATE 2,8:PRINT "OK !";:FOR t >VN
=1 TO 1000:NEXT t:GOSUB 2690:GOTO 1
610
3310 PEN 1:LOCATE 2,8:PRINT "T'es s >DX
"+CHR$(64)+"r ? (O/N)";
3320 IF UPPER$(INKEY$)="O" THEN PRI >LV
NT " Oui";:GOSUB 2690:RETURN
3330 IF UPPER$(INKEY$)="N" THEN PRI >NF
NT " Non";:GOSUB 2690:GOTO 1610
3340 GOTO 3320                      >MF
3350 LOCATE 2,6:PRINT "CHARGER";:GO >ZH
SUB 3310:GOSUB 2690
3360 LOCATE 2,6:PRINT "Nom du fichi >NZ
er:";
3370 LOCATE 2,7:PRINT "(8 car. maxi >HK
.);
3380 LOCATE 2,8:INPUT "",nom$       >XK
3390 IF nom$="" THEN GOSUB 2690:RET >FB
URN
3400 IF LEN(nom$)>8 THEN PRINT CHR$ >EF
(7);:GOSUB 2690:GOTO 3360
3410 GOSUB 2690:PEN 1:LOCATE 2,6:PR >UZ
INT "Chargement en cours...";
3420 nom$=nom$+".MUS"               >QH
3430 OPENIN "!"+nom$                >NX
3440 INPUT #9,notej                 >NF
3450 FOR t=1 TO notej               >PV
3460 INPUT #9,note$(t)              >QX
3470 INPUT #9,duree(t)              >RU
3480 INPUT #9,volu(t)               >QD
3490 INPUT #9,envo(t)               >QP
3500 INPUT #9,ento(t)               >QD
3510 NEXT t                         >WF
3520 CLOSEIN                        >MA
3530 LOCATE 2,8:PRINT "OK !";:FOR t >KL
=1 TO 1000:NEXT t:GOSUB 2690:PEN 3:
LOCATE 1,1:PRINT notej;:LOCATE 1,3:
PRINT notel-notej;:PEN 1:GOTO 1610
3540 GOSUB 2690:PEN 1:LOCATE 2,6:PR >KH
INT "BASIC ou CP/M ? (B/C)";
3550 IF INKEY(54)=0 THEN PRINT " Ba >CM
sic":GOSUB 3580:CALL 0
3560 IF INKEY(62)=0 THEN PRINT " CP >ZF
/M":GOSUB 3580:ùCPM
3570 GOTO 3550                      >NF
3580 PEN 3:LOCATE 2,8:PRINT "Au rev >VN
oir et "+CHR$(59)+" bientot !";
3590 FOR t=1 TO 1000:NEXT t         >UQ
3600 FOR t=400 TO 0 STEP -2:PLOT 0, >KW
t,INT(RND*4):DRAW 640,t:NEXT t
3610 RETURN                         >FD
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